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WHAT LEGISLATURE OF 1921 DID FOR EDUCATION IN PENNSYLVANIA.

BRIEF SUMMARY OF IMPORTANT EDUCATIONAL LEGISLATION BY GENERAL ASSEMBLY.

BY enacting the program of education for the State originated by Dr. Thomas E. Finegan, Pennsylvania has now set by law educational standards that place her in the front rank of the states. The new laws first provide for the higher qualifications of teachers and then stipulate minimum salaries for the various grades of work, which will not only retain successful teachers in the profession, but also will attract to the public service of teaching the highest type of young men and women.

By 1927 no person will be employed in any classroom in the State who is not a graduate of a two year's professional course in a standard Normal School or the equivalent. This means that 1921 graduates of the common Schools may qualify for teaching by taking six years of training—four in the high school, and two in the Normal School.

The new Council of Education will coordinate the work of the entire system of education from the elementary grades thru the colleges and professional schools.

Dr. Finegan's declaration of war on illiteracy is embodied in constructive legislation which will place our 418,000 adult illiterates in the class of self-respecting and efficient literates. Adult education is now a reality and there is no escape for any one from the teacher from the beginning of the compulsory school age until he enters the unseen portal.

House Bill No. 1016. Author, Mr. Edmonds. *Act No. 163.

*Of the 72 educational bills passed by the Legislature, the Governor approved 60 and vetoed 12. On the date of this report, May 28, 1921, no numbers are given to acts carrying appropriations.

1. A measure establishing a state-wide salary schedule for teachers, but basing such salary on qualifications. The salary schedule, in general, is as follows:

ELEMENTARY TEACHERS.

4th class districts (Generally rural schools)	$100 per month
3d class districts	$1000 per yr. to $1400
2d class districts	$1000 per yr. to $1800
1st class districts	$1200 per yr. to $2000

HIGH SCHOOL TEACHERS.

4th class districts	$130 per month
3d class districts	$1200 per yr. to $1600
2d class districts	$1400 per yr. to $2200
1st class districts	$1800 per yr. to $3600

A salary schedule for supervisors, directors, superintendents, etc., is also provided, being graded according to the class of district and based upon the compensation paid regular teachers in such districts.

2. Increasing the qualifications of county superintendents by providing that no one except college graduates or normal school graduates with certain teaching experience shall be qualified for the position.

3. Increasing the salaries of all assistant county superintendents from $1800 to $2500 per year and giving most of the county superintendents an increase ranging from $500 to $1000.

4. Fixing the minimum qualifications for teachers in every district in the State, after September 1, 1927, as graduation from a State normal school or the equivalent.

5. Transferring from county and city superintendents of schools to the State De-

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partment of Public Instruction the certification of teachers.

6. Lengthening the school term one month throughout the State.

7. Strengthening the compulsory attendance laws.

8. Increasing the state aid to schools during next two years from $24,000,000 to $36,000,000, and establishing a new basis of apportionment.

9. Making appropriations to the normal schools sufficient to support them without charging students tuition, and providing a salary schedule for faculties of such institutions. This increases the appropriations about one and one-half million dollars.

10. Creating a State Council of Education to consist of nine business and professional men and women, by abolishing the State Board of Education and the College and University Council.

11. Standardizing elementary courses in public and private schools and requiring that such courses in all these schools shall be taught in the English languages and from English texts.

12. Encouraging the consolidation of schools by providing that each school which is closed shall entitle the district to an annual allotment of $200.

13. Making appropriation of $125,000 for the creation of an Extension Bureau for the purpose of inaugurating Americanization and other extension work.

14. Providing that a building shall be erected for the State Education Department and providing that such building shall be made a memorial to the life and services of Thaddeus Stevens, and further providing that such building shall be known as the Thaddeus Stevens State Education Building.

House Bill No. 119. Author, Mr. Woner. Act No. 40.

An act amending section 803 of the School Code by increasing the pay of school directors for attendance upon their annual convention from $2 to $4 per day, and also increasing the mileage rate from three to four cents per mile for the distance necessarily travelled going to and from the convention each year.

House Bill No. 147. Author, Mr. Huston. Act No. 256.

An act amending sections 147 and 212 by providing that where any school district is changed to another class, the school directors in office at the time the change is effected will remain in office until the end of the term for which they were elected.

This will avoid the necessity of electing an entire new board and, as many school districts will be changed this year because of the census of 1920, the act will save considerable money, annoyance, and confusion by eliminating the necessity for filing petition with the court for appointment of a new board of directors.

If a school district goes into one of a higher class thereby entitling it to more directors than it formerly had, the board in office elect the new members in the same manner as they would fill any new vacancy. If the district goes into a lower classification, there will be no election until enough terms have expired to reduce the number below the number to which the district under its new classification is entitled.

House Bill No. 187. Author, Mr. Beaver. Act No. 36-A.

A supplement to an act approved the first day of April, 1863, affecting land grant colleges. The act appropriates $281,000 to the trustees of Pennsylvania State College to cover a deficiency in general maintenance of the school of agriculture, the agricultural experiment station, and other departments of said school.

House Bill No. 204. Author, Mr. Walker. Act. No. —.

An act to regulate the practice of engineering and land surveying by creating a State Board for Professional Engineers and Land Surveyors. The act requires that all persons practicing or offering to practice the profession of engineering or land surveying after the first day of June, 1922, shall be registered as "professional engineer," or as "land surveyor" unless otherwise exempted under this act.

House Bill No. 238. Author, Mr. Hefferman. Act No. 20.

A supplement to an act approved the 7th day of May, 1907, (P. L. 161), providing for legally qualified licensed assistant or assistants to be known as dental hygienists. The duties of such assistants are defined and they are given authority to inspect and do certain work in public schools as well as other institutions.

The dental hygienists must be 19 years of age, or more, of good moral character, and must have completed a four year high school course or its equivalent as approved by the Bureau of Professional Education. He must further hold a certificate from some recognized institution that he has successfully completed one year of dental work approved by the Dental Council.

A provision is made whereby the Commissioner of Health may employ, or cause to be employed, any public health work persons who have taken a course in keeping the teeth clean and gums healthy and who have been adjudged prepared for this work by the chief of the division of dental health.

House Bill No. 254. Author, Mr. Stark. Act No. —.

An act amending the act of 1917, (P. L. 747), requiring that all bonds of school districts and other issuing agencies shall be sold to the highest responsible bidder after notice by publication in one or more newspapers, such purchaser to be determined at a duly advertised meeting where the bids shall be publicly received, opened and read. The acceptance of bids must be made by public announcement at which meeting bids are received or at a subsequent meeting, the time and place of which

shall be announced at the time of receiving the bids.

House Bill No. 345. Author, Mr. Wolf. Act No. 40-a.

An act making an appropriation of $304,000 to the Commissioner of Soldiers' Orphan Schools for salaries and maintenance.

House Bill No. 453. Author, Mr. Cook. Act No. 350.

An act amending section 1412 of the School Code by providing that where any charge is made by a school district for tuition for the inmates of any orphan asylum, home for friendless children or other similar institutions, the officers of the institution shall submit to the board of school directors a sworn statement setting forth the names, ages and residences of all children who are inmates of the institution. The tuition of such inmates as come from outside the state of Pennsylvania, or whose residence cannot be certified to by the officers of the institution, shall be paid to the school district by the institution.

House Bill No. 524. Author, Mr. Steedle. Act No. 100.

An act amending the act creating a Bureau of Medical Education and Licensure in the Department of Public Instruction by giving the Bureau broader rights in ascertaining the character of instruction and facilities of hospitals or medical institutions outside of the Commonwealth, and hospitals desiring interns within the Commonwealth, and also making certain exemptions from a complete compliance with the preliminary educational requirements. The bill further limits a bedside oral or laboratory examination without additional fee to one examination.

It also provides that any action taken on suspension or revocation of a license must be by unanimous vote of all members of the Bureau present at the meeting at which such action is taken.

House Bill No. 650. Author, Mr. Finney. Act No. 344.

An act amending section 602 of the School Code extending the right of school boards to acquire by purchase, lease, gift, devise, agreement or condemnation, or otherwise, real estate, either vacant or occupied, so that it may include lands formerly occupied by streets and alleys which have been annexed by municipal authorities.

House Bill No. 668. Author, Mr. Ruch. Act No. 345.

An act amending section 303 of the School Code by extending the term of the secretary of the school board from one year to four years.

House Bill No. 669. Author, Mr. Ruch. Act No. 238.

An act amending sections 537, 539, 541, 542, 543, 556, 557, 558, and repealing section 544 of the School Code.

This act repeals the old occupation tax provision as well as the amendment of 1919 to section 542 which caused so much difficulty. In the place of this occupation tax it is provided that school directors may levy a per capita tax on every male and female resident of the school district over 21 years of age in such amount between $1 and $5 as it shall see fit. It is not required that a school board levy a per capita tax at all, but if it is done it may not be less than the $1 provided for therein, and such tax shall be in addition to all other school taxes, no exemption from the payment thereof being allowed because of the payment of a property or other tax.

House Bill No. 677. Author, Mr. Beckley. Act No. 351.

An act amending sections 1607, 1607(a), and 1607(b), of the School Code. The act consolidates all three sections and now reads as follows:

"Section 1607. In every elementary public and private school established and maintained in this Commonwealth the following subjects shall be taught in the English language and from English texts: English, including spelling, reading and writing; arithmetic; geography; the history of the United States and of Pennsylvania; civics, including loyalty to the State and National Government, training in safety first methods and the humane treatment of birds and animals; health, including physical training and physiology; music, art. Other subjects shall be taught in the public elementary schools and also in the public high schools as may be designated or approved by the State Board of Education. All such subjects, except foreign languages, shall be taught in the English language and from English texts."

House Bill No. 744. Author, Mr. Bell. Act No. —.

An act amending the Teachers' Retirement System, requiring persons beyond the age of 62 years who continue in the service to continue contributions to the system until they retire, and inserting a clause concerning prior and future service, and further providing that the years of service after the contributor reaches 62 years of age shall be accepted as credits in calculating the final salary to which the contributor is entitled.

House Bill No. 748. Author, Mr. Sterling. Act No. 102.

An act amending section 508 of the School Code by increasing the amount which the school districts may borrow on temporary loans from two-tenths of 1% in first and second class districts, to four-tenths of 1%; and from one-half of 1% in third and fourth class districts to 1%.

The method of repayment and the purposes for which the money may be used remain the same.

House Bill No. 749. Author, Mr. Davis. Act No. 54.

An act amending sections 563 and 564 of the School Code by requiring fourth class school districts to prepare a budget, and prohibiting the use of any moneys set aside for one class of expenditures to be used for any other purpose except by action of the board at a legal meeting.

House Bill No. 767. Author, Mr. Harding. Act No. 352.

An act amending section 1601 of the School Code. This law requires that all school districts of the first, second and third class shall

have a minimum school term, beginning with the school year 1921, of 180 days, and that all school districts of the fourth class shall have for the school year 1921 a minimum term of 150 days, and for the school year beginning 1922 and each year thereafter a minimum term of 160 days.

House Bill No. 768. Author, Mr. Woner. Act No. 55.

An act amending section 1205-A of the School Code permitting increased salaries to be paid principals, supervisors, district superintendents and assistant superintendents during the term for which such persons are employed.

Under the present law the salaries of teachers may be increased during their term. The term of office of superintendents or principals is apparently fixed at three years, and under the former act it was not clear whether such salary could be increased during the term. This act gives definite authority to school boards if they so desire to increase such salaries.

House Bill No. 770. Author, Mr. Goodnough. Act No. 127.

An act amending section 2703 of the School Code to permit the State Board of Education to invest moneys of the permanent school fund in bonds properly issued by the Government of the United States and the Commonwealth of Pennsylvania.

House Bill No. 784. Author, Mr. Martin. Act No. 167.

This bill provides that where school bonds have been authorized, either issued or unissued, and the purpose for which they were intended has proven to be impractical or undesirable, the board of school directors may hold a new election on the question as to whether or not the moneys therein authorized to be raised shall be applied to a new purpose, which purpose shall be set forth in the ballot upon which the votes are recorded.

House Bill No. 823. Author, Mr. Beckley. Act No. 364.

An act validating certain liens for unpaid school taxes in districts of the first class where the description of the land is such that it may be readily identified.

House Bill No. 830. Author, Mr. Armstrong. Act No. 37-A.

House Bill No. 1039. Author, Mr. Armstrong. Approved.

Act No. 37-A provides a deficiency appropriation of $8,000 to the State Board of Education for use in the payment of scholarships provided for by the act of 1919. The original act provided one scholarship for each senatorial district or for each county in case a senatorial district covers more than one county. It was found that this would cover 80 scholarships, and as the amount was fixed at $100 per year, the legislature appropriated $16,000 for the two years, evidently not estimating that while the first year only required $8,000, the second year would require $16,000 itself. The total appropriation originally should have been $24,000.

H. B. No. 1039 provides an appropriation of $56,000 to take care of these same scholarships during the next two years.

House Bill No. 832. Author, Mr. McCaig. Approved.

This bill makes an appropriation to the Retirement Board for the prupose of carrying out the law providing for the retirement system. Three separate funds are carried in the act: $100,000 to be used by the Board; $250,000 to be paid into the contingent reserve fund as provided by clause 3, section 8; $1,250,000 to be paid into the annuity reserve fund as provided by clause 5, section 8.

House Bill No. 914. Author, Mr. Clutton. Act No. 239.

An act amending section two of the act of 1909 (P. L. 417). This act permits the location of auditoriums and gymnasiums on the ground floor level instead of on the grade level as before specified. By so doing such auditoriums may be placed high enough so that light and air may be had in the basement rooms. The safety of persons in such auditoriums or gymnasiums is not affected by the additional height of from 4 to 6 feet. Great expense will be saved to the school districts in the matter of erection of buildings by virtue of this law and no factor of safety be dispensed with.

House Bill No. 919. Author, Mr. Woodruff. Act No. 410.

This bill makes a deficiency appropriation to the Department of Public Instruction of $1,700,000 to pay the State's share of salaries of teachers. The State guaranteed payment of this money, but was unable at the time of the original appropriation to make a definite estimate of the cost. The exact amount is now known, and the appropriation is necessary in order to save the local districts, which have, in many cases, borrowed the money to pay the amounts.

House Bill No. 939. Author, Mr. Craig. Act No. 391.

This bill amends the School Code by providing that school directors in all classes of school districts may, upon petition of the parents or guardians of at least 25 children between the ages of 4 and 6 years residing within the district and within one mile of any elementary school therein, establish and maintain a kindergarten. If the average attendance thereat falls below ten, the school directors are required to close and discontinue same.

The act also provides for the qualifications of kindergarten teachers who shall be employed in such kindergartens, setting forth that they shall be graduates of a high school of good standing and shall have had a two years' course in kindergarten work in a Normal School or equivalent work in a private school.

The board of school directors are authorized in addition to all other taxes to levy a two mill tax for the support of this kindergarten.

House Bill No. 960. Author, Mr. Morris. Act No. 365.

This measure amends the School Code by providing that whenever a teacher is prevented by sickness or some unavoidable circumstance from following his or her occupation, the school district may, if it so desires, make such

payments of compensation for the period of absence as the directors may determine. No payments may be made in such case, however, except upon a physician's certificate setting forth the facts.

House Bill No. 961. Author, Mr. Morris. Approved.

This act removes the former $2 per day maximum which fourth class districts might pay to attendance officers. It fixes no maximum nor minimum in any school district, but it does permit the old minimum of $1200 in first class districts to stand. The only change which it makes is to permit school districts, if they so desire, to employ attendance officers for the full calendar year.

House Bills Nos. 1054, 1055, 1056. Author, Mr. Dawson. Acts No. 366, 355, 367.

The first of these three bills provides for the creation of the State Council of Education to consist of nine members who shall be appointed by the Governor for a term of six years. The State Council by this law takes over all of the duties, powers and obligations of the State Board of Education, and is charged with the performance thereof.

The last two of the foregoing bills provide for the transfer of all of the former powers, duties and obligations of the College and University Council to the newly created State Council of Education.

House Bill No. 1068. Author, Mr. Hefferman. Act No. 190.

An act creating a Dental Council to be composed of the Secretary of Internal Affairs, the Commissioner of Health, Superintendent of Public Instruction, the president and first vice-president of the Pennsylvania Dental Society, and the secretary of the Board of Dental Examiners. This act sets up a complete system of registration and examination as well as stipulating regulations for the practice of dentistry in the Commonwealth of Pennsylvania.

House Bill No. 1093. Author, Mr. McVicar. Act No. 424.

An act providing that where lands are annexed to a borough of an adjoining county, such lands shall be held to be of the county in which the borough is located for all school purposes except entering tax liens.

House Bill No. 1195. Author, Mr. Hess. Act No. 360.

This bill provides for the Thaddeus Stevens Educational Memorial requiring the Board of Commissioners of Public Grounds and Buildings to name the educational building erected on the capitol ground "The Thaddeus Stevens Educational Memorial," and creating a commission composed of the Governor, the Superintendent of Public Instruction, Chief Justice J. Hay Brown, one citizen appointed by the president pro tem of the Senate, and one appointed by the Speaker of the House of Representatives to compile a brief biography of the life of Thaddeus Stevens.

House Bill No. 1225. Author, Mr. Woner. Act No. 369.

This measure provides that where a city, incorporated town, borough, or township, or a part of the school district remaining after its separation would constitute a fourth class school district, such a change in the school districts may not be made without the approval of the State Board of Education which in determining whether or not it shall become a separate district shall take into account the welfare of the taxpayers and the pupils of the proposed new school district as well as the effect upon the existing school district.

The bill further provides for the establishment of union school districts upon a majority vote of the districts proposing to join such union school district. Such districts when formed would go into the class in which the population thereof would entitle them to be placed. They would thereafter be governed as one school district with one board and one set of officers.

The act further provides that where a city, incorporated town or part of the school district remaining after its separation would constitute a fourth class school district, such changes may not be made unless approved by the State Board of Education; when independent districts, if created, would either form a fourth class district themselves or the territory remaining after the formation of an independent district would become a fourth class district, the merits of a petition for the creation of such independent district must be passed upon by the Department of Public Instruction and must be approved before the courts will grant it.

House Bill No. 1251. Author, Mr. Stadtlander. Act No. 250.

This measure amends the School Code by adding thereto sections 127 and 128, and also amending section 502 of the Code, for the purpose of enabling school districts of the first class, which annex or in any other way acquire territory of another district, to control the levying of taxes in the other districts until the schools of the annexed district become a part of the schools of the first class district. Under the present law when territory is annexed to any other municipality or school district, the right of the school directors of such territory to levy taxes and expend money remains the same until the end of the next school year. The time between the annexation and the end of the school year is often used in a way detrimental to the interests of the larger school district, as, for instance, in levying a high tax, starting building operations, incurring indebtedness, levying of no tax at all, or some other such action. In order that the schools may be operated, the bill provides that the first class district annexing such territory may levy a tax not exceeding one-half of the millage levied in its own district.

House Bill No. 1259. Author, Mr. Dithrich. Act Vetoed.

This act provides that persons who have been engaged in the practice of dentistry in the Commonwealth for a period of 25 years, and are of good moral character, and who shall present proper affidavits to the Dental Council before the first day of July, 1921, shall be granted a license to practice without examination.

House Bill No. 1262. Author, Mr. Wood. Act Approved.

An act changing the appropriation made

annually to the Superintendent of Schools of Warren County for the education of Cornplanter Indians from $800 to $900, and $1500 additional is appropriated for the installation of a new heating and toilet system in the Cornplanter Indian School.

House Bill No. 1293. Author, Mr. Hess. Act No. 371.

An act providing that where children are kept in the home of a resident without remuneration for such residence, such children shall be entitled to attend school in the district without payment of tuition. It provides also that where children are placed in a district at the instance of an institution or organization having charge of such children that the cost of tuition shall be paid by the Commonwealth. No school district is required to accept such children where it will be necessary to build new buildings or to add to the transportation costs of a district.

House Bill No. 1333. Author, Mr. Bolard. Act No. 372.

This measure provides that whenever the Commonwealth of Pennsylvania shall, for the conservation of water or to prevent flood conditions, acquire any lands or property for such purposes, the school district within which such lands lie shall immediately certify to the Auditor-General and the Superintendent of Public Instruction the assessed valuation of such land at the time of acquisition. Thereafter the school board shall certify to the said Auditor-General and the Superintendent of Public Instruction annually the rate of taxes which it has levied for school purposes. The amount of tax which would have been secured from such land shall thereupon be ascertained and shall be paid to the school district out of the general fund.

House Bill No. 1367. Author, Mr. Hess. Act No. 373.

This measure amends the School Code by exempting such children from the compulsory attendance act who have completed a course of study equivalent to six yearly grades in the public school, and also exempting from the provisions of such compulsory attendance children between the ages of 14 and 16 years engaged in farm work or domestic service in a private home on a permit issued by the school board in accordance with requisitions which the Superintendent of Public Instruction shall prescribe.

House Bill No. 1377. Author, Mr. Chaplin. Act No. 374.

An act to amend sections 1701, 1704, 1705 and 1711 of the School Code. This act makes provision for the new classification required by reason of the advent of the junior high school. It defines elementary school as including all grades not included among those recognized as high school grade in the classification of the Department of Public Instruction. It defines a high school as an organization of grades 7, 8, 9, 10, 11 and 12 in cases where any of such grades are organized as part of the junior high school, the senior high school or a six year high school with the approval of the State Board of Education. In cases where such grades are not so organized, grades 7 and 8 shall be considered as a part of the elementary school.

A complete high school course is set forth as one requiring four years beyond an elementary course of eight years or six years beyond an elementary course of six years.

The act further eliminates the old course of study for high schools as required by section 1704, and substitutes therefor such a program of studies as the State Board of Education shall approve. Each subject for which there is an application by fifteen pupils belonging to the grade in which such subject should be placed shall be offered in the regular course of study.

This act eliminates all the requirements of the law as to particular subjects which must be taught in the high school.

House Bill No. 1478. Author, Mr. Martin. Act No. 375.

An act to amend sections 216, 323, 1145 and 1408 of the School Code. These sections are taken up in the order above given as follows:

1. The act provides that where there is a vacancy in the entire membership of school boards, the county superintendent of schools may take charge of the schools in the district and operate them at the expense of the district.

2. It further provides that where a superintendent or a supervising principal of schools is elected as secretary of any board of school directors, he shall serve in such capacity without additional compensation.

3. Another change is made in the present law by permitting superintendents and assistant superintendents to teach in summer schools maintained in State Normal Schools or Universities and receive compensation therefor, if properly released for such service by their employing boards.

4. A new plan of fixing the procedure in taking measurements to ascertain the distance from the school to the residence of the pupil is set up in the fourth amendment. The law provides that all such distances shall be computed from the school building to which the pupil has been assigned by a highway to the nearest point where a private way or private road connects the dwelling house of the pupil with the highway. It is thought that this act will eliminate considerable confusion in the matter of measurements where the question of compulsory transportation is involved.

House Bill No. 1508. Author, Mr. Curry. Act No. 376.

An act amending section 1316 by eliminating the requirement for 200 hours of pedagogical studies in college and substituting therefor such work as the State Board of Education may prescribe. The former requirement was considered too rigid, and it is thought that the present act will eliminate hardships in a number of cases without in any manner reducing the requirements.

House Bill No. 1514. Author, Mr. Woodruff. Act No. 377.

An act amending section 207 of the School Code. This amendment enlarges the number of offices which are incompatible with the office of school director. To the former list there is added by this act the office of supervisor, principal or teacher.

There was some discussion as to whether or not a teacher in one district ought not to be eligible for school director in another district, but the act does not permit this.

Senate Bill No. 163. Author, Mr. Smith. Act No. 4.

This act is known as the Rehabilitation Act. The general purpose and provisions of the act in the various sections thereof are as follows:

Section 2 accepts the benefits of an act of Congress.

Section 3 designates the State Treasurer as custodian of monies.

Section 4 designates the State Board of Education as a State Board to co-operate with the Federal Board for Vocational Education and to supervise the training and direct the disbursement of funds.

Section 5 directs the State Board of Education and the Department of Labor and Industry to co-operate and formulate a plan of co-operation through the Bureau of Rehabilitation of the Department of Labor and Industry.

Section 6 directs the State Board of Education to appoint a competent agent to control and supervise the work of rehabilitation conducted by the Bureau of Rehabilitation of the Department of Labor and Industry for the purpose of recommending for the approval by the State Board of Education of so much of the rehabilitation work as meets the requirements of the Federal Act. When such work has been approved by the State Board of Education it shall reimburse the Department of Labor and Industry from Federal funds for the cost of administration of the work meeting the provisions of the Federal Act.

Section 7. Limiting the scope of the work of rehabilitation to any persons disabled in industry or any legitimate occupation, and excluding aged or helpless persons requiring permanent custodial care, or blind or deaf or epileptic or feeble-minded persons.

Section 8. The chief of the Bureau of Rehabilitation may establish relations with public and private hospitals and require reports. He may arrange with the Superintendent of Public Instruction for training courses or may arrange with any educational institution, public or private organization, or commercial, industrial or agricultural establishment for such courses.

Section 9. General supervision of the work subject to the restriction in section 6 is placed in the Department of Labor and Industry except where such disabled persons desire to go into public educational institutions or classes, or higher institutions of Pennsylvania, in which case the names of such persons shall be certified to the State Board of Education, after which, if they enter said institutions, their training shall be under the direct supervision and control of the State Board of Education.

Senate Bill No. 168. Author, Mr. Eyre. Act No. —.

An act transferring and re-appropriating the unexpended monies formerly appropriated for use under the consolidated school act to be used under the provisions of section 1406 as amended for transportation.

Senate Bill No. 170. Author, Mr. McNichol. Act No. —.

An act amending the act providing for the establishment of a board for examination of accountants to permit certified public accountants of other states in the United States, who have been certified for at least one year, to be certified by the Board at their discretion without examination.

Senate Bill No. 290. Author, Mr. Craig. Act No. —.

This is a joint resolution proposing an amendment to Article 3 of the Constitution of Pennsylvania, under which amendment school districts might be divided by legislation into seven classes. These resolutions are required to pass two sessions of the Legislature, and this is the second session for this resolution. It is necessary, however, after the resolution has been approved by the sessions that it be approved by the people, and it will then require legislation to make it effective.

Senate Bill No. 309. Author, Mr. Smith. Act No. 286.

An act amending the act of 1917 regulating optometry and the right to practice in the Commonwealth. The change made by this amendment is that it permits the taking of limited examinations and the licensing of persons who apply therefor before January 1, 1922, provided said persons were unavoidably absent from the State on account of service in the army or navy, or who were unavoidably absent from the State, or who were physically handicapped and unable to take such examinations.

It also prohibits the peddling and soliciting from door to door or the establishment of temporary offices, or the employment of solicitors or the obtaining of money by fraud or misrepresentation.

Senate Bill No. 325. Author, Mr. Leslie. Act No. —.

An act requiring all teachers in public, private or parochial schools, or other institutions of learning, and all persons holding a certificate or to whom a certificate is about to be issued, to teach in any of the schools of the Commonwealth, to subscribe to an oath of allegiance to the Commonwealth and the Government of the United States, and providing a penalty for failure to comply with said act.

Senate Bill No. 334. Author, Mr. Eyre. Act No. 32-a.

An act re-appropriating certain unused funds heretofore appropriated for education of teachers in the state normal schools and making a deficiency appropriation of $582,316 for the maintenance of state normal schools for the two years beginning June 1, 1919. This act further sets forth the amount appropriated to each normal school for such deficiency.

Senate Bill No. 338. Author, Mr. McDade. Act No. 139.

An act amending article 20 of the School Code by adding thereto section 2040 which authorizes the State Board of Education to inquire into the propriety of purchasing the Cheyney Training School for Teachers. If the State Board finds that the owners thereof are desirous of selling and that it would be for the best interests of the State to own such

institution, they shall make the most advantageous arrangements possible for the purchase thereof.

Senate Bill No. 376. Author, Mr. Smith. Act No. 107.

An act providing that automatic sprinkler systems or automatic fire alarm systems shall be installed in all school-houses and other places when required by the Commissioner of Labor and Industry. When so required, such systems shall be approved by him.

Senate Bill No. 648. Author, Mr. Smith. Act No. 329.

An act providing for more extensive and effective medical inspection in public schools by requiring the appointment of a sufficient number of inspectors to conduct the required inspection, and requiring them to make such additional inspections and examinations as shall be provided for or required by the Commissioner of Health, the district superintendent of schools or the principal. It provides further that the report on the physical condition of the children need not be kept until the end of the school year, as is at present required, but only until the last month of the school term, and that a note shall be made of corrections or defects reported with the evident intent that they shall be able to measure the progress made by the child.

Senate Bill No. 745. Author, Mr. Eyre. Act No. 330.

An act amending section 2021 and repealing sections 2022, 2023, 2024 and 2025 of the School Code. This act repeals those sections creating an examining board and specifying their duties and rights, and substitutes for section 2021 the provision that the Superintendent of Public Instruction shall prescribe and conduct necessary examinations in the normal schools.

It further gives the State Board of Education the right to prescribe the form of normal school certificate, and it makes such certificate full evidence of the qualification of the teacher holding it to teach two full annual school terms in any public school in this Commonwealth without further examination.

Senate Bill No. 837. Author, Mr. Baldwin. Act No. 399.

An act amending section 1126 of the School Code by providing that every county superintendent having more than 150 and not more than 350 teachers under his supervision shall have an assistant superintendent, and every county having 350 and not more than 600 teachers under the supervision of the county superintendent shall have two assistant superintendents.

Senate Bills Nos. 853, 854. Author, Mr. Crow. Vetoed.

These bills are attempts to validate so far as possible the indebtedness created in school districts between 7% and 10%. The act permitting their increase from 7% to 10% by a three-fifths vote has recently been declared unconstitutional, and therefore the bonds heretofore issued were in some danger of repudiation. These bills are calculated to make the payment of them a moral obligation on the district and so far as possible to validate such bonds.

Senate Bill No. 879. Author, Mr. Baldwin. Act No. 335.

An act amending sections 506 and 508 of the School Code. This act enlarges the powers of boards of school directors in the matter of issuing bonds by permitting such issue for refunding purposes. All obligations or certificates of indebtedness issued under the provisions of the law and outstanding on the 31st day of December, 1921, may be refunded by the new bond issue, and are not required to be paid off within the two year period as the old section 506 sets forth.

This act does not raise the limitation on total indebtedness, but does raise the limitation on temporary indebtedness.

Senate Bill No. 889. Author, Mr. Homsher. Act No. 291.

An act authorizing the purchase and erection of residences for principals, teachers or janitors by school districts of the fourth class. Said purchases are subject to the approval of the State Board of Education in manner and form to be prescribed by the State Board, and money may be borrowed for the purchase and erection of such buildings in the same manner as for any other school building.

Senate Bill No. 936. Author, Mr. Smith. Act No. 214.

An act authorizing boroughs, townships, school districts, and poor districts to appeal from assessments of property or other subjects of taxation for their corporate purposes in the same manner and subject to the same procedure as appeals may now be taken by a taxable person with respect to his property.

Senate Bill No. 954. Author, Mr. Norton. Vetoed.

An act amending section 632 by providing for sanitary equipment in each school in every school district. It is required that one-third of all the necessary equipment be installed each year beginning with the coming year until all such equipment is installed.

Senate Bill No. 955. Author, Mr. Stineman. Vetoed.

An act requiring the filing of plans and specifications for buildings, public works, etc., undertaken by school districts and other municipal corporations. Said plans are required to be filed with the Clerk of the Quarter Sessions fifteen days previous to the awarding of any contracts provided the work involves an expenditure of more than $15,000. Said plans and specifications shall be used in evidence in case of dispute between the municipality and the contractor. A filing fee of $3 is provided, and it is further provided that anyone interested may secure copies thereof within three days after requesting them by depositing a sum of $25 as security for their return within ten days after the contract has been let.

Senate Bill No. 963. Author, Mr. Crow. Act No. 446.

An act authorizing the acquisition by purchase or condemnation of lands with or without buildings for the creation of a State Truancy School, and providing for the operation thereof by the State Board of Education.

An appropriation of $200,000 is made for the purpose set forth in the act.

Senate Bill No. 1048. Author, Mr. Smith. Act No. 338.

An act amending section 627 of the School Code by extending the purposes for which school buildings may be used so that it will include the holding therein of primaries and elections.

Senate Bill No. 1061. Author, Mr. Heaton. Act No. 237.

An act amending an act of 1909 P. L. 417 by providing that all schoolhouses and other places of public assembly shall provide all ways of egress or means of escape from the buildings in which assemblies may be held with a separate emergency electric lighting circuit independent of the main lighting circuit of a type to be approved by the Commissioner of Labor and Industry.

House Bill No. 1469. Author, Mr. Hoffman. Vetoed.

An amendment to the retirement act providing that all school employes who have served as county superintendent of schools and who have rendered a minimum of 50 years of service, shall receive at least $500 per year annuity upon retirement.

Senate Bill No. 881. Author, Mr. Daix. Act Vetoed.

An act amending the retirement law by providing that persons receiving more than $2000 per year salary may pay in a proper proportion thereof to the retirement system which will be met by the State and school district, and may receive an annuity based upon the amount of the payment instead of being limited to $2000 as at present.

Senate Bill No. 77. Author, Mr. Patton. Act Vetoed.

An act amending section 11 of 1917 P. L. 1443. This act is intended to give credit for the years of service required under the retirement act to those who have performed certain services outside of the public schools of Pennsylvania.

Under the act, in computing the length of service of a contributor credit should be given for each school year of service not exceeding fifteen years rendered in school work outside of the public schools of Pennsylvania. Those who are to receive such credit must pay into the retirement fund an amount to be determined by the Retirement Board. The State is also obligated to make up the amount of accumulated deductions which would have been obtained from the State and the school district had such person been in the system during the time for which he gets credit. No one is permitted to benefit by this provision unless he has been in the educational service in the Commonwealth for ten years.

House Bill No. 1059. Author, Mr. Elgin. Act Vetoed.

An amendment to section 14, sub section 4, of the Retirement Act, providing that an employe who has rendered at least 50 years of school service and who retired before the passage of the retirement act and did not therefore become a contributing member to the retirement system, shall receive the retirement allowance consisting of a State annuity of 50% of his or her final salary.

RURAL SCHOOL DEPARTMENT

THE Rural Schools Department in joint session with the Department of County Superintendents was called to order by the Vice-President of the County Superintendents' Department, Thomas A. Bock, Tuesday, Dec. 28th, 1920, at 9:30 A. M. in the Technical High School. This meeting is reported in the March number of The School Journal, pages 380 to 386.

The Rural Schools Department in separate session was called to order by the President, H. C. Fetterolf, of Harrisburg, in the Y. M. C. A. Building. Secretary, Miss Mary Palmer, of West Chester.

Mr. H. E. Gayman, State Supervisor of Junior Projects, read the following paper which called forth interested discussion.

JUNIOR PROJECTS.

Some time ago a speaker addressing a group of live boys and girls of the 7th and 8th grades put this question to them,—"Of all the men of whom you have ever heard, who would you rather be?" The responses were somewhat as follows: One said Edison, another Ty Cobb, another Buffalo Bill, another Theodore Roosevelt, another Babe Ruth, and so on. He then put the question, "Of all the men of whom you have ever heard who would you rather not be?" And the replies were somewhat like this,—"Benedict Arnold, a bonehead, a sick man, a cheat."

A careful scrutiny of these replies will perhaps give one as clear an insight into the ambitions of youth as it is possible to secure. It is well to note that each man was one who had either achieved or excelled in some particular activity,—Edison, the great inventor; Ty Cobb, the hero of the baseball diamond; Buffalo Bill, the expert marksman; Theodore Roosevelt, the exponent of the fair deal and strenuous life; and Babe Ruth, the "home run" king. How characteristic this is of boys and girls—the desire to excel and to achieve! Boys will spend hours in throwing a ball, to throw more accurately than another; girls will look with envy on a comrade who surpasses them in accomplishments. Teams and contests will be planned, organized, and executed for the express purpose of determining the superiority of one group over another. Foot races will be run to find the fleetest; wrestling bouts to determine the best wrestler, and so on day after day a continuous round of activity in their ambition to excel and achieve, not only in athletic contests but in superiority in making things and owning things. One boy has the best dog; another the biggest rabbit; another some chickens; another a calf; another a pig. One boy can make the best popgun; another the best kite; another the best bow and arrow; another the best boat; another the best whistle, etc. It is an age of *making, doing* and *owning* things, and every possible source of information will be exhausted and every experiment will be tried in the eager desire to have the best trained dog, the best kite, the best calf, or the best pig.

I am sorry that I must confess at this point that I have not described a group of 7th and 8th grade boys and girls as they appear in a school room, but a group of boys and girls as they appear outside of school. Activities in the average school room do not call for an expression of such enthusiasm as described above. It is true there is some enthusiasm present in a school room, but in the majority of cases it is "pent up" enthusiasm. Children are active by instinct but they can be made passive by suppression. Activities do not center around things of natural interest—real things—but around subjects, a collection of facts superimposed by adults, bound in book form to be used alike whether by boys and girls in city or country. It is needless to say there is not much activity.

It is here that junior projects enter. Dr. Winship was right when he said, "We must begin with the child where he is when he is there." Education must be through the work of the child and his interests. It must deal with life situations. Public schools are recognizing this fact more and more. The growth of Junior High Schools with opportunities in junior projects in manual and industrial arts attest this fact. I shall not discuss this phase of the question, however, but limit my discussion to junior projects as they relate to the rural communities of the state.

The school mortality in rural districts is appalling. In one of the best agricultural counties of the state there are in the whole county 37 farm boys enrolled in high schools—only 37—one to every 82 farms in the county. It is natural to assume that since this is an agricultural county the boys and girls are interested in gardens, chickens, pigs, calves, corn, potatoes, pets, etc. These perhaps with their games are their chief interests. If they are, they should be capitalized by the rural school teacher and made use of as educational tools. Groups should be organized in the school to raise the best pig or calf or crop. This is the real junior project as it is a definite undertaking—involving a purpose, plan of operation, execution of plan, and judgments. It would be a junior project since it dealt with boys and girls of junior high school age rather than vocational age. Involved in this undertaking would be all the elements needed to create all the enthusiasm found in the play activities as described in the first part of this discussion, namely, 1. Sense of ownership, (my pig). 2. Personal responsibility. 3. The actual doing of things. 4. Opportunity for seeking information—(here would be the proper use of text books). 5. Opportunity for excellence and achievements. 6. Reward, whether a grade in school or approval of fellows.

Would a school having such activities not prove more interesting and fascinating than one without such activities? Do we not owe it to every farm boy and girl to give him or her the opportunities of such activities? My answer is in the affirmative. Assuming this is the case let us examine more in detail some of the fundamental factors underlying this work.

1. Organization.—To result in the keenest competition the boys and girls from one school should be considered one "group." The combined groups of the individual schools of a township or of several townships in which the number of boys and girls approximated 50 should be designated as a unit. The organization of these boys and girls into groups and units would be the logical work of supervisors of agriculture, county vocational supervisors, township superintendents, or interested county superintendents or their assistants.

2. Teachers.—Desirable qualifications of teachers for junior project work are as follows: (a) Intimate, sympathetic knowledge of farming and rural conditions. (b) Ability as a leader of boys and girls. (c) General education and training equivalent to that of a rural school teacher. (d) Special instruction in agriculture at a normal school, summer course at State College, or a two-year course in Agriculture at State College.

It is highly desirable that the local teacher aid in instruction as much as possible, as she will thus become more intimately associated with her pupils, their home environment and parents. As the practical work on the project will not cease at the close of school some one must be available to visit the junior project workers occasionally during the school vacation. This may be a county vocational supervisor, a district superintendent, or a teacher employed during the summer months especially for this type of work.

3. Equipment.—Little or no extra equipment should be necessary. Occasionally it may be desirable for a school to have a sewing machine or cook stove depending upon how much of work is done at school. The best laboratory and best equipment for practical educational purposes in junior projects are the homes and farms of the boys and girls of the school.

4. School Credit.—At least school credit and recognition of this practical work done at home should be given on the following conditions: (a) that sufficient supplementary study is done at school in connection with practical work, (b) that the practical work in the home or farm is regularly visited, (c) that a complete record and report is kept and made of all activities incident to junior project work, (d) that each boy and girl exhibits their product in a group unit, or county contest.

5. Recreational Features.—In conformity with the play idea and spirit that should enter into all this kind of work, recreational features as picnics, hikes, trips, camps, baseball, leagues, track meets should be organized and all outdoor activities encouraged.

Before concluding, I should like to emphasize this point; the fact that rural children are dealt with does not mean that their activities should be limited to agricultural projects. The one thing that the farm boy and girl is most interested in should be the project undertaken—this may be of an agricultural nature—on the other hand it may be a construction project involving the erection of a brooder house, or farm gate; a mechanical project, as the repair of an automobile or the assembling of a mower or binder; or a project in photography, printing, wireless telegraphy, etc. It is true, competent instruction and supplementary reading material would be more difficult to secure, but it should not deter the undertaking of a project of this kind.

In conclusion, let me summarize some of the

results that I think should obtain from this type of work.

1. An increased enrichment of boys' and girls' experiences and appreciations of practical everyday affairs.

2. A discovery of their aptitudes and inaptitudes for certain types of work which should enable them to choose their vocations more wisely.

3. An increased respect for the school in that it would encourage them in achievement work with real things.

4. A closer relationship between pupils, teacher and parents.

5. The enlarging of the school so that it will include not only the activities of the boys and girls in the schoolhouse, but also the activities of the boys and girls in the social, civic, and economic life of the home and the community.

The following questions were named on the program for the discussion which followed the reading of this paper:

1. By what means may the co-operation and interest of parents be secured? 2. In what ways may Junior Project work be used as a stimulus for better community spirit? Better school spirit? 3. What should be the criteria for determining the successful completion of a Junior Project? How may Junior Projects influence the social life of the community? 5. How may Junior Projects be made of economic value to the community? 6. On what basis should Junior Projects be selected? 7. Is there any relation between vitalizing the rural school and Junior Projects?

Prof. R. G. Bressler, of Pennsylvania State College, then presented the subject of "Teaching Rural Boys and Girls to Play." This paper, which we have not received, was followed by a series of questions designed to open discussion.

Mrs. Hettie S. Browne, Director of Rural Education, Bloomsburg State Normal School, presented a live question of the one-room school, in her paper,

THE RURAL SCHOOL AS A LABORATORY.

Judging from the papers I have heard read since I have been in attendance on this assembly all are agreed that the school is life and, therefore, that the curriculum of the school should be made up of life situations as far as possible. The Rural School, especially, should be a place where the life of the surrounding community is reflected in that it represents a small group, more or less homogenous, and all engaged in practically the same activities. In addition the science of farming is simple enough to allow of certain phases being started in detail in the school.

The personnel of the country school is much more typical of life than that of a city school. Here is found a group of children ranging in age from 6 to 14. In a building off to itself it has its own environment and becomes a little community all to itself. Let us consider some of the life situations that this little community has to deal with. There is no janitor so the entire care of the building falls to teacher and pupils. Proper attention to this duty will result in valuable lessons in health and citizenship.

The first of these may be concerned with good ventilation. Such questions may occur as, "Why is fresh air necessary in the school room? How much is necessary? How can it be obtained?" The answer to these questions forces teacher and pupils to perform simple experiments, and send them to books for verification of results obtained and for further information on the subject. They will find that scientists, after having made investigations, have agreed that a certain amount of fresh air is needed per individual. In answering the practical question of how to get this fresh air without a draft on some one, the pupil does some original thinking, some observation, some experimenting, and learns to use certain common tools. The question would not be complete if it ended here. It must and will carry over into the home. The pupil, who is interested in having fresh air in the school, will be no less interested in having the same thing at home and elsewhere. There will be no trouble to get him to sleep with windows open at night. The same thing happens with regard to the question of heating the school room, for sweeping and dusting and for the general care of the building and grounds.

The school room community becomes a democracy in which teacher and pupils are citizens. In order that all may work in peace and harmony and that none may encroach upon the rights of others, certain rules may be passed by teacher and pupils gathered together for their consideration. Having taken part in the making of certain rules the pupils will be careful to see that they are obeyed. Recently I went into a first grade room and on the blackboard I saw certain rules for the government of the school, made not by the teacher but by the pupils themselves. I need not point out the value of such proceedings in helping the child to form early in life proper habits and attitudes.

Education is concerned with giving the individual certain knowledge, habits, attitudes, and appreciations. If it were possible to separate one from the other and to evaluate one more than the other, we should unhesitatingly say that knowledge is the least and that habits and attitudes are the most important of the three. If this be true let us organize our school in such a way as to take advantage of the opportunity for our boys and girls to form the very best habits early in life.

Dr. Bonser defines the school room as "the conscious means used by society to give children rich and various experiences in wholesome living in the most economical way."

I have chosen to think of the school room as a laboratory rather than as a place in which to recite lessons. A laboratory because it differs from real life in that we choose our own life situations for study, and that we single out one phase of life rather than attempting to solve an entire life problem with its complications. A laboratory in which is brought to bear upon the question on hand all observation and experiments that are to be secured at the present time and the experiences, observations, etc., of the race that have been written down in books for our guidance. A place where work is

going on. It is a place where there are no foregoing conclusions, but all are watching results before deciding on the answer. It is a place where different combinations are expected to give different results, e. g., pupil A will not react to certain stimuli as pupil B, nor as pupil C does.

It is a place where there is constant growth, where the teacher is a learner by the side of the pupil. A place where all subjects are brought into use to solve some live problem. The word laboratory may not be the best term for what I have attempted to describe. If some one can give me a better I shall appreciate it.

How shall these life situations, these projects, these problems, be chosen? The enthusiast for the child's interests will say at once that the child must propose and select his own project. Such people forget that the same child has an instinct for bullying as well as one for kindliness; and the exercise of certain instincts may result in much harm as well as in much good to the child, all depending on the way in which they are allowed to develop. Even a healthy, normal child in a proper environment cannot be trusted to be the best criterion in determining just what life situations are most valuable for him to engage in at certain times. By a second method the aims and purpose of life will be determined by the adult and the child is introduced to the simplest of these and the ones best suited to his stage of development at that particular time. Those who advocate this method believe that children will be interested in and feel a need for the activities proposed. I am afraid it will all be done from the adult standpoint. The third method is a combination of the first two. While it encourages children to propose projects, the teacher helps the children select those projects which have educational value in them. The teacher's duty will be to help the pupils to feel certain needs and to bring these needs to the consciousness of the child. When the need is felt and the purpose formulated the teacher will assist the pupils to find the solution to their problems through the use of experiments and of books.

While finding the solution to the original problem, numbers of other related problems will arise, and the teacher will skilfully guide the pupil in selecting one of these as his next problem. The pupil instead of having the passive, receptive attitude so often found in the school room, will be active and alert and a conscious agent in his own development. The problems that arise will be group problems and the working out of these will call for co-operation; sometimes pupils of varying ability will be working on the same problem and both will be benefited. In addition to co-operation and helpfulness there will be the opportunity for formation of such other habits as intelligent curiosity, persistency, and initiative, courage, justice, self-control and leadership.

The question may be asked, What use will be made of a course of study? It will represent the minimum essentials, the knowledge and habits that pupils of a certain age should have in common. In addition, the pupil will be interested in knowing just how his progress compares with that of others of the same age. Fortunately tests and measurements have been devised whereby a child may be measured in something besides the amount of knowledge that he has been able to assimilate.

While we admit that pupils are more alike than they are unlike we also recognize that there are individual differences; and believe such a school as has been described will afford opportunity for each child to live a full rich life and reach his highest development.

Dr. J. P. McCaskey, Secretary of the P. S. E. A., then read a paper on the subject of Astronomy, which was much as follows:

"THOSE GLORIOUS STARS."

Thomas Carlyle, as he looked back to boyhood and school days, asked regretfully, "Why did not some one teach me the stars?" Why, indeed, when so easy to learn, so good to know from youth to age; so delightful to teach—and no less delightful to learn?

I had the great good fortune to be born in the country, under what the poet Bryant speaks of as "those glorious stars," that make the night forever beautiful. By the time I was ten years of age I knew the Bible as I have never known any other book. My father expected me to look up references of all sorts. It was a book for everyday reading—and I knew the Old Testament, the Apocrypha and the New Testament, every story, every man or woman of note good or bad. When I read of Balaam, the son of Beor, and his prophecy, "There shall come a Star out of Jacob, and a Sceptre shall rise out of Israel," I felt the meaning and force of its splendid imagery. I think I got my first interest in the stars from reading the Bible with my mother. And what do I not owe of gratitude for bias in early childhood towards this grandest of sciences.

What a Book it is! What a Book it is! Blessed men and women—blessed angels—Cherubim and Seraphim, "for orders and degrees jar not with liberty but well consist." I have since learned of the cosmos, the universe, "the heavens and the earth"—the heavens so vast, the earth so small—infinite reaches of space, endless cycles of time. And —"What is man that Thou are mindful of him!"

Shall we talk of quadrillions of miles, or trillions, or billions, or millions, or hundreds or tens of thousands, when a thousand, a hundred, or a dozen, would be more within our reach? Dr. John H. Finley tells of astronomers who risk a guess of 375 quadrillions of miles as the probable distance between two points named—375,000,000,000,000,000! He says:

"A few mornings ago, at breakfast, there sat opposite me at table an astronomer who was coming from his night's work as I was going to my day's work, and we at once began to talk 'shop,' his 'shop,' i. e., about the stars which were in his shop's ceiling. He informed me in the course of the conversation that there are now known to be worlds whirling in space 375 quadrillions of miles away. In rising from the table I found that I had been sitting back to back with Herbert Putnam, librarian of Congress, who asked as I passed: 'Do you

generally begin the day with such cosmic conversation?'"

Go out under the open sky of any starlight night, when the moon is below the horizon, in the late autumn, during the entire winter and in the early spring. See the Pleiades, "fireflies tangled in a silver braid." See Orion, visible from pole to pole when it is above the horizon, for it is directly over the equator. See stars and star groups that have been noted and named by successive generations, recognized and talked of in familiar acquaintance in many lands for thousands of years. Think of the great stars of Orion, that were known to Job—*six hundred* light years distant from us—and of thousands and millions of stars ranging from not less than three such years to thousands—light always moving at the velocity of 186,000 miles per second.

Forty years ago it was my business to give the list of stars and star groups to our Star Club, other members of which prepared papers on the sun, the moon, different planets, meteors, comets, etc. Lines of direction and distance, in degrees, were most useful, and we studied the heavens with satisfaction and enjoyment. How far off are those leading stars of Orion, those of first and second magnitudes —Mintaka, Anilam and Anitak, three stars of second magnitude in the Belt, and Betelguese, Rigel, Bellatrix and Saiph, making the quadrilateral. How far off are they?

I searched many text-books, and elsewhere, but found nothing. Nobody had ventured a guess. Some months ago I heard Sir Oliver Lodge, in his first lecture in Philadelphia, say that within the past ten years the science of astronomy has made such advance that 600 light years is the latest estimate of astronomers, as probably the average distance of these brilliant stars.

Think of a railroad train whose speed is a mile a minute. Let this rate of speed be kept up day and night and in 166 days you would reach the Moon; 50 years to Venus, 110 years Mercury, 177 years the Sun, going in that direction from the earth; going outward from the sun, it would take 78 years to reach Mars, 740 years to Jupiter, 1470 years to Saturn, 3160 years to Uranus, and 5055 years to Neptune. How long a time on this flying train to the nearest fixed star, do you guess? *Forty million years!* And this is estimated at three and a half light-years. Think, for a moment, of Orion, with its brilliant suns, 600 light-years distant, and others a thousand and ten thousand light-years from us! Learn to know some of these stars, and to think these soul-moving thoughts.

In the October number of The Pennsylvania School Journal there was an article of ten or twelve pages on the most stupendous subject of thought and study in physical science that has ever challenged the attention of thinking man. It originally appeared, with numerous illustrations, in the August number of the National Geographic Magazine. Read this again and again, if you can,—alternate, if you will at times, between book and starry sky with all its wonders—for the rest of your little life, and day by day and year by year the majesty of Jehovah will grow upon you as in the presence of no other thought you have ever known.

When the Star Club was holding its semi-monthly meetings, nearly forty years ago, in the crowded lecture room of the Young Men's Christian Association, I brought to the Fulton Opera House—with all their apparatus for illustration on a grand scale—two of the most noted lecturers of their day on astronomy, Bishop Henry W. Warren, author of the delightful book, "Recreations in Astronomy," and Richard A. Proctor, the distinguished author and astronomer of England, who was then lecturing in the United States. (Miss Proctor, his daughter, who is a noted astronomer of England, will visit the United States next year (1921) on a similar tour, lecturing on Astronomy.) Both lectures were enjoyed by large and appreciative audiences. What audience could be too wise or too great for an intelligent discussion of the mechanism of God's universe? If there had been assembled in Fulton Opera House, in Lancaster, on these nights the thousand men, wisest and best, most capable, and most eager inquirers after truth the world has known in all its ages, they would have heard with deepest interest and wonder, the story of the astronomer, as to what has been discovered and is now known to be true of the stellar universe. Think of Abraham and Melchizedek, Moses and David, Pythagoras, Socrates and Plato, Paul, John of the Apocalypse, Martin Luther, Shakespeare, Copernicus, Dante, Michael Angelo, Columbus, Herschell, Humboldt, Gœthe, Tennyson, Scott, Carlyle, Victor Hugo, Agassiz, Longfellow, Lowell—the wise men of the East, and the wise men of the West—all gathered into one audience, eager to hear the truths which the sublimest of all material sciences has thus far established! That were an audience indeed! worthy a subject of such magnificent proportions.

Bishop Warren, in a letter after receiving a pamphlet copy of the work of our Star Club, said: "I received my first lessons in astronomy before I knew the four fundamental rules in arithmetic. These lessons I have never forgotten. They have made me feel at home wherever I have turned my face to the skies, though I was on the great ocean, among the Alps, on the Pyramid, or under the clear sky of the East, where God, seeking to lift Abraham up to his own lofty thought, said unto him, 'Look now towards heaven and tell the stars if thou be able.' Perhaps I did not thank the district school teacher as I should have done at the time, but I have blessed her ever since and am glad to say any word of encouragement to any that are following in her steps."

The Monthly Evening Sky Map, a journal for the amateur, is published by Leon Barritt, Arbuckle Building, 367 Fulton Street, Brooklyn, New York, at $1.50 per year. It is now in its fifteenth volume, and is said to have the largest circulation of any astronomical journal in the world. This periodical will be of great use to any teacher who may be attracted to the study of the stars. And the school so fortunate as to have such a teacher is greatly blessed.

We repeat, in closing, what was said in the Report of the State Educational Association for 1919:

The Report for last year (1918) is worth

not one dollar, but many dollars—especially in its Lines of Direction and Distance and its list of stars and constellations—to any one who wishes to take up the magnificent study of the heavens in their stars and star groups; to any gifted and reverent teacher who would encourage life-long familiarity with Orion, the Pleiades, and "all the host of heaven" in the minds of his or her pupils. It is a *vade mecum* in star study, the oldest and grandest of all the sciences, always challenging attention, needing no apparatus for study by any country school beyond the eyes and ears of the teacher and pupils.

OFFICERS FOR 1921.

The nominating committee reported the following for officers for the year 1921 and the Secretary was authorized to cast the ballot.

President, Mr. Gehr, Director Waterford Vocational School; Vice-President, Miss Alma Rice, Slippery Rock Normal School; Secretary, Miss Mary Palmer, County Supervisor Home Economics, West Chester; Treasurer, Mr. W. H. Hall, Prof. Agricultural Education; General Nominating Committee, Mr. J. K. Bowman, Supervisor of Agricultural Education; Educational Council, Derl Hess, County Supervisor, Northumberland.

DR. NATHAN C. SCHAEFFER.

A MEMORIAL.

THE annual report of the Superintendent of Public Instruction of the Commonwealth of Pennsylvania for the year ending July 6, 1919, has just been issued from the press. Dr. Schaeffer died March 15th and of course his personal report as State Superintendent had not then been written.

This memorial volume opens with the addresses of Dr. H. M. J. Klein, Dr. George M. Philips, Dr. O. T. Corson, Supt. E. M. Rapp, and Supt. Henry Snyder. Mr. C. D. Kock, who was for a time first deputy under Dr. Schaeffer and later Acting Superintendent of Public Instruction, presents appropriately, under proper headings, nearly a dozen pages of extracts on many subjects of interest from reports and addresses of Dr. Schaeffer, during his long connection with the school work of the state. Mr. L. H. Dennis gives report as Director of the Bureau of Vocational Education; Mr. W. P. Loomis makes his report as the Supervisor of Industrial Education; the County Superintendents are here in the alphabetic order of their counties; and the District Superintendents in their proper order. The usual statistical tables of counties, cities and boroughs, with additional matter of interest and value relating to colleges complete the volume.

"This volume is a memorial," says the preface, "to Dr. Nathan C. Schaeffer, late Superintendent of Public Instruction. He was appointed June 3, 1893; he died March 15, 1919, thus making his official term only a few months short of twenty-six years, a record probably unequalled, in a similar position, in the United States.

"This, the twenty-sixth annual report, which marks the last year of Dr. Schaeffer's work, contains several memorials delivered on different occasions. Here also are reprinted excerpts, gems of thought selected from his reports and addresses. These will be of vital interest to those who followed the late Superintendent's educational labors.

"His reports for the last twenty-five years contain a wealth of educational material. The several hundred pages include discussions covering a wide range of subjects; they chronicle the achievements of the Department of Public Instruction, and of the school officials throughout the Commonwealth.

"A careful survey of his early reports convinces the impartial reader that Dr. Schaeffer was in a real sense a true educator. With him the child and the teacher were inseparable; the two together made a school. The welfare of the child was his chief concern.

"The leading and controlling ideas of his life, which found expression in all his educational utterances, show that Dr. Schaeffer was practical and modern. Early in his life he pointed out that the nation needed real patriotic citizens. His speeches and writings are full of statements and references to America's greatest need. His first report, 1894, shows how clearly he understood, judged by the World War, that the security of the nation depends on proper instruction in history and civics.

"He believed that pupils of thirteen and under could be prepared for their future duties as citizens and, in order that right habits might result, advocated pupil participation in school and community activities.

"He felt very much concerned about the large percentage of foreign born people in the United States, and especially about the education of the foreign born in Pennsylvania. He insisted that these needed the patriotic influence of our public schools, as well as instruction in the use of the language other than their mother language.

"To associate and work with Dr. Schaeffer, who so cheerfully shared his rich exeriences, was indeed a rare privilege. To each member of his official family he was a wise counsellor and friend. This splendid personality will ever be, to those who knew him well, a lasting memory."

MAKING PROPER APPEAL FOR TEACHING SERVICE.*

IN September of the present school year, over 11,000 children were without teachers in the public schools of Pennsylvania and many thousands more were on part time in the congested sections of our large cities. Approximately 150,000 children were being taught by teachers who had themselves never received a high school education. With the opening of schools next September, nearly 6,000 new teachers will be needed for the schools of this State. Of this number less than half will be provided from the colleges and normal schools and the remainder must come from the ranks of those young men and young women who have had no professional training for their task. Society would regard as intolerable such a situation in the legal profession or in the medical profession.

Just what are the conditions which place the teaching profession in this unenviable position? The average salary paid the teachers in the public schools of Pennsylvania for the last school year was $856. The living conditions imposed upon thousands of our teachers in the rural districts are such as to deter young men and young women of refinement from undertaking such work. School buildings where the teacher spends the working day are often so unattractive and unsanitary that discouragement and ill health are inevitable consequences to working in such an environment. Positions in our schools are often secured in anything but a professional manner, the choice of the teacher being dependent upon personal influence with the appointing body rather than upon professional qualifications. The law gives very little protection to the really qualified teacher by setting up qualifications which are so low that no professional training is required for entrance to the teaching profession.

The results of this combination of circumstances are two-fold. First, a very brief tenure of service in the profession, more than 35 per cent. of all the teachers in Pennsylvania having had but three years or less experience; and secondly, the development in those who do remain in the profession, of a kind of nomadic instinct which leads them to wander from place to place, intellectual tramps, constantly in search of more attractive conditions. Less than 50 per cent. of all the teachers in the State have been more than three years in their present position, and between 11,000 and 12,000 teachers change positions each year.

And yet in all that I have said I have failed to touch upon what appears to me to be the most vital point in the consideration of this whole problem. There was a day when the teacher ranked with the doctor, the preacher, and the lawyer as worthy of a special measure of social esteem. Hats were tipped to the dominie as he walked along the street. A place of honor was always reserved for him at public gatherings. His advice was sought and accepted and he was perhaps second only to the clergyman in the influence which he wielded in the community.

This situation seems permanently to have disappeared and been replaced by its opposite. Not only does the teacher lack a special social prestige, but on the contrary, even less than the usual social recognition is given to the teaching profession. The reaction upon the members of the profession has been, of course, most serious and there has been a tendency, as there always is, for teachers to measure up, or down, as it is in this case, to the opinion which society has of them. Teachers are frankly ashamed of their caste. It is rare that one can get a well dressed and attractive girl sitting on the veranda of a summer hotel to acknowledge on such occasion that she is a school teacher. Bundles of papers being taken home for marking are carefully concealed in knitting bags, and a thousand innocent deceptions are practiced in recognition of the social disfavor.

Perhaps I have painted the existing situation in sufficiently bold outline for a consideration of the steps which must be taken if young men and young women of promise are to be attracted to the teaching service.

In the first place, I want to address myself to the leaders of the teaching profession. I wonder sometimes if we set the example which should be in itself a large attraction to youths standing on the brink of life and facing the choice of a craft which shall carry them safely to the journey's end. Are we sufficiently appreciative of the opportunities which are ours as leaders in this supreme service to the individual and to society?

And this thought inevitably suggests another. We claim to be educators and hold as our special business in life the setting of ideals and standards and the molding of minds and the formation of characters in conformity therewith, and yet we have failed in a signal sense to do what seems to suggest itself as a primary thing; namely, to educate society to a recognition

* A paper read at Schoolmen's Week, University of Pennsylvania, by Dr. Albert L. Rowland, Director Teacher Bureau, Department Public Instruction, Harrisburg, Pa.

of the worth of what we are doing. This phase of the educative process has been sadly and seriously neglected.

In connection with the suggestion of any such education of the body politic must come, obviously, the dissipation of the dominant materialism which has been so characteristic of the modern age with the possible exception of the few years in which the nation was lifted to a high sense of sacrifice by the exigencies of war; a clear recognition on the part of adults of the importance of childhood as a definite and real phase of life and not simply as a preparation for the future; a wage scale that will permit teaching to compete successfully with other comparable fields of endeavor; the establishment of standards of personality, of culture, and of professional training which will insure a membership in the teaching profession worthy of recognition and respect; and a dignifying of the profession that will remove it from the field of petty and personal politics.

The immediate problem which presents itself to us as practical schoolmen is how to appeal to those boys and girls, the seniors in our thousand high schools, who look out upon life with eager eyes seeking the best chance to be and to serve.

A campaign should be begun with the specific object of recruiting for the teaching profession by recruiting for the state and city normal schools. This campaign should be thoroughly and intelligently organized and should enlist the assistance of leading schoolmen and prominent citizens throughout the State. Some of the most effective agents in such a campaign are the senior students in the normal schools who, by their presence, their poise, and their effective address, are more persuasive than older and more experienced speakers.

We must, of course, be able to offer them competent salaries and decent living conditions. The legislation now pending before the General Assembly, together with a noticeable tendency for economic conditions to return to a normal level, should make a definite appeal to young people preparing for a livelihood. Normal graduates are guaranteed a minimum salary of $100 per month and the better students are sure to receive more than this. Few occupations offer larger initial returns.

But when we have done this we have only paved the way. We have really offered nothing persuasive. The boys and girls who must be the teachers of tomorrow must not be those who sell their souls for a mess of pottage. The means to live are but the preliminaries to the opportunities to live well.

In the first place we must frankly present the attractiveness of attendance at a state normal school at state expense; the delightful surroundings and the associations with students and faculty; the satisfaction in the sense of working toward a definite goal which even the college rarely gives; the practical work of the training school as fascinating as the laboratory to the scientist or the court room to the lawyer; the contact with children, appealing to every right minded boy and girl; the preparation for work rich in human values and of vital importance to both individuals and to the State; the friendships formed with students and the inspiration of contact with those members of the faculty who are strong teachers and real scholars. These appeals are immediate and they are concrete. Do you use them?

When the normal course is completed and the graduate bids farewell to the institution with mingled feelings of regret and anticipation, what then! Then comes the first real teaching position with all the joy of the child with a new toy, the man with his first automobile, the girl with the first house of her own; the joy of proprietorship in something which is fascinatingly interesting. A chance is given to put theories to practice, to perform a real experiment, to make good, and to feel that thrill of satisfaction that comes with a sense of high service rendered nobly.

After the first flush of enthusiasm has passed there is the more mellow satisfaction that comes with pride in skillful technique and with making preparation for advancement. No field of labor offers such large measure of leisure for personal and professional advancement; for the widening of one's horizon of interests; for the deepening of one's wells of information; for filling oneself for bigger and broader usefulness.

Propitiously to the need has come a top to the teaching profession. Higher executive positions may be found in considerable number with compensations between five and ten thousand dollars, a reasonable goal for even an ambitious youngster.

But many girls very properly lack interest in such remote possibilities and frankly face a teaching career as but a convenient stop-gap between graduation and marriage. This is an altogether proper attitude and I would meet it frankly with the contention that no occupation can compare with teaching as a preparation for marriage, for the home is essentially a place of children and the mother is their first teacher. There is no mother but would enlarge her service to her own children if she be a trained and experienced teacher. The

proof of this is that more teachers marry than remain in the profession, and usually such marriages are highly satisfactory.

But the dominant reason why young people of ability and promise should enter this profession is the sense of supreme service that one is rendering when teaching. No other vocation offers such joy to its professor.

To briefly recapitulate, our problem is first, to rehabilitate the teaching profession in the estimation of the public, and then to present to the best of our high school seniors the following points: 1. An adequate wage; 2. The pleasure and profit of a normal school course; 3. The craftsman's joy in his work; 4. The unusual opportunity for personal and professional advancement; 5. The value of training for teaching as a preparation for marriage and motherhood; and 6. The refreshing joy of contact with childhood.

Each day is a golden adventure as rich in romance as a day in the life of a Knight of the Table Round. There is a minimum of drudgery and a maximum of interesting experience. The daily program is broken by a variety of activities that preclude monotony, and if one is blest with a sense of humor, and no good teacher is without it, the review of each day's adventure is a poignant delight, laughter mingled with tears. The successful teacher has found what Ponce de Leon sought and died in vain seeking, the fountain of perpetual youth, for no good teacher ever grows old. In the words of a teacher who has evidently grasped the significance of teaching "The true teacher is and may well be proud of the title, for her work is akin to that of the Master Builder, the creation of a temple not made with hands." The Teacher is a gardener in a garden of ideals where minds and hearts grow into character.

ASTRONOMY.

Astronomy is, above all others, a science that cultivates the powers of the imagination. Yet all its theories and distances are based upon rigorous mathematical demonstrations. Thus the study has at once the beauty of poetry and the exactness of Geometry.

The great dome of the sky filled with glittering stars is the most sublime spectacle in nature. To enjoy this fully, a night must be chosen when the air is clear, and the moon is absent. We then gaze upon a deep blue, an immense expanse studded with stars of varied order and brilliancy. Some shine with a vivid light, perpetually changing and twinkling; others, more constant, beam tranquilly and softly upon us; while many just tremble into our sight, like a wave that, struggling to reach some far-off land, dies as it touches the shore. In the presence of such weird and wondrous beauty, the tenderest sentiments of the heart are aroused—a feeling of awe and reverence, of softened melancholy mingled with a thought of God, comes over us, and awakens the better nature within us. Those far-off lights seem full of meaning to us, could we but read their holy message; they become real and sentient, and, like the soft eyes in pictures, looking lovingly and inquiringly upon us. We come into communion with another life, and the soul asserts its immortality more strongly than ever before. We are humbled as we gaze upon the infinity of worlds, and strive to comprehend their enormous distances, their magnificent retinue of suns. The powers of the mind are aroused, and eager questionings crowd upon us. What are those glittering fires; What their distances from us? Are they worlds like our own? Do living, thinking beings dwell upon the planets that revolve around them? Are they carelessly scattered through infinite space, or is there an order of the universe? Can we ever hope to fathom those mysterious depths, or are they closed to us forever? Many of these problems have been solved; others yet await the astronomer whose keen eye shall be strong enough to read the mysterious scroll of the heavens. Two hundred generations of study have revealed to us startling facts, that we wonder how man in his feebleness can grasp so much, see so far, and penetrate so deeply into the mysteries of the universe. Astronomy has measured the distance of many of the stars, and of all the planets; computed their weight and size, their years, and seasons, with many of their physical features; made a map of the moon, in some respects more perfect than any map of the earth; tracked the comets in their immense sidereal journeys, marking their paths to a nicety of which we can scarcely conceive, and at last it has analyzed the structure of the sun and far-off stars, announcing the very elements of which they are composed.

Observing for several evenings those stars which shine with a clear distinct light, we notice that they change their position with respect to the others. They are therefore called *"planets"* (literally, *wanderers.*) Others remain immovable, and shine with a shifting, twinkling light. They are termed the *"fixed stars,"* though they also are in motion—the most rapid of any known even to Astronomy—but through such immense orbits that they seem to us stationary.

Then, too, diagonally girdling the heavens, is a whitish, vapory belt—the *Milky Way*. This is composed of millions of suns—of which our own sun itself is one—so far removed from us that their light mingles, and makes only a fleecy whiteness. This magnificent panorama of the heavens is before us, inviting our study, and waiting to make known to us the grandest revelations of science. And it needs no telescope. A little courage to begin, a little patience to "carry on," a little staying power to succeed, beyond the measure of your dreams.

THE ARITHMETIC OF PROMOTION.

R. M. PATTERSON, GASTONVILLE.

THE arithmetic of promotion gives three outstanding results.

First, if the course of study divides the work of the common school into eight equal parts, all of the children who pass the first year will pass every year unless some cause for failure becomes operative that was not operative at first. If the work of the different years is equal the amount of ability and labor that will enable a child to do the work of one year in the allotted time will enable him also to do the work of every year in the allotted time. This is true whether the course is difficult or easy.

Second, if a child fails in the first grade, he may or may not fail again in other grades for the same reason. If he does not have the ability to do the work of the first grade in one year, the extra time he spends in it will cause him to be older than the children of his grade who have passed without failure. The extra age will give him extra ability, and so he may reasonably be expected to do the work of the higher grade in less time than he took for the lower grade.

If a mental age of seven is necessary for a child to do the work of the second grade in one year, a child eight years old must have an intelligence quotient of 87½ to enable him to pass into the second grade. ($7 \div 8 = 87\frac{1}{2}$). If the intelligence quotient remains constant, such a child will have at the age of nine a mental age of 87½ per cent. of nine, or seven and seven eighths. Then, if a mental age of eight is necessary for promotion to the third grade, such a child will fail in the second grade. If a mental age of 14 is necessary for admission into high school, a child 15 years old must have an intelligence quotient of 93 1/3 in order to pass from the eighth grade. Thus, if the mental age of the median child of each age is necessary for promotion without failure thru all the grades, all children with intelligence quotients between 87½ and 93 1/3 will fail twice during the course. Those with intelligence quotients below 87½ will fail oftener. With a course of study either more or less difficult than that supposed, other figures can be substituted for those used without altering the principle illustrated.

It is to be noted, however, that all of the children who fail have spent more time in school than the children of their own mental age who have not failed, and so they should be better prepared for the work; but it is a fact that as a rule they do not get along so well. This shows that the methods used or the matter taught does not suit these children. If in some way this extra time could be made to count for something, but few of these children would fail.

Third, by permitting children to pass with a mark indicating that the work has been perfect, most of the brighter children will have all they can do working for perfection. If the ability of children of a given age is in proportion to their intelligence quotients, in an examination in which the child with an intelligence quotient of 100 can make 80 per cent., to make 100 per cent. a child must have an intelligence quotient 125 (80 : 100 :: 100 : 125). A lower passing mark and harder work will give children with a still higher intelligence quotient all they can do working for perfection.

In conclusion, it is evident that it is harder to so manage the schools as to give the duller children justice than to give the brighter children justice, but that the problem of inability to do school work is naturally centered in the first grade. If the schools were properly managed, there would be few failures in any of the grades above the first.

MODERN LANGUAGES.

THE Modern Language section was attended by about 35 persons, including Dr. J. P. Crawford, of the University of Pennsylvania; Dr. J. F. L. Raschen, of the University of Pittsburgh; Dr. I. L. Foster, of State College; Dr. R. W. Moore, of Colgate University; Dr. Riemer, of the State Department of Public Instruction and several principals of the normal and high schools. Dr. Raschen presiding, the program as scheduled was carried out with little change.

The first paper "How many years of Modern Language in the Junior High Sshool?" by Miss Marion Armstrong, of the Latimer Junior High School of Pittsburgh, was read by Miss Frances Foulke, of Schenley High School, Pittsburgh.

HOW MANY YEARS OF MODERN LANGUAGES IN THE JUNIOR HIGH SCHOOL.

The question assigned me as a topic is a vital one, and one of pressing importance to teachers of modern languages in both Senior and Junior High Schools. It is fortunate that it should come up for discussion at a meeting of this kind. The field is comparatively new, and we who are working in it sometimes find ourselves confronted by real problems. Since the Junior High School exists under various forms in the state it would perhaps be well to define it as here comprising the seventh, eighth and ninth grades. Our question may then resolve itself into this form: In which grade shall the study of modern language be begun?

In any consideration of this topic we must keep in mind the purpose of the Junior High School. Those who have interested themselves in this project are aware that this school is designed to bridge the gap between the elementary and secondary schools, and to afford those pupils who are unable to complete a high school course at least one year of secondary work. It is obvious that in planning any course in the Junior High School we must consider two groups of pupils: (1) those who intend to leave school on their completion of the Junior High School course, and (2) those who expect to continue their studies in Senior High School.

How much time is needed to adequately cover the ground? Should modern language study be begun in the seventh or eighth grade? I daresay every teacher of French or German is familiar with the arguments in favor of beginning thse studies in childhood when the organs of speech are still plastic, when the memory holds whatever is new and interesting, when the reason does not raise perplexing questions, and strange modes of thought are accepted and learned as facts. It is not difficult to become enthusiastic over teaching language to children. They, themselves, are so enthusiastic; their eagerness is so refreshing; their lack of self-consciousness in using the spoken language is so charming. After experience in teaching both older and younger pupils, I am convinced that the advantages in learning to *speak* a foreign language lies with the young beginner.

But one must not over-estimate the ultimate results. After all, from the very nature of the aim of such teaching and of the method employed, the study of modern language below the ninth grade can be only a foundation. If the method employed stresses drill in the sound system of the language and inculcates habits which will be useful in more serious linguistic study, this preparatory work may surely be regarded as well worth-while. For who among us finds time to present these phases of the subject adequately in first year high school work?

For such a foundation one year seems ample time. One might go further and say that it is all that can or should be spared from other studies. With a well-planned course covering one period of instruction per day during the eighth grade, one can lay an excellent foundation in pronunciation and in vocabulary; one can familiarize the pupil with the country and the customs of the people whose language he is studying; and one can gradually introduce him to the study of grammatical forms which will accellerate his progress in the ninth year.

The trend of modern education is to begin early to lay the foundation in the solid disciplinary studies, but it is not well to dissipate the child's energies over too wide a field. We must not demand more than our share of the child's time and effort. Judging from my own experience I am convinced that the eighth grade work is invaluable to this group of pupils, although statistics, I believe, would indicate that many of those who begin modern language study in Junior High School drop the subject before completing the Senior High School course. May this not be due in large measure to lack of adjustment between the Junior and Senior Schools?

Modern language work may be profitably begun in the eighth grade of Junior High School. This preparatory course makes it possible to present adequately certain phases of the subject which must of necessity be covered hastily in regular high school work. One year, however, is ample time for this instruction. The cultural and disciplinary value of modern language work justifies a two years' course in Junior High School extending throughout the eighth and ninth grade even for those pupils who do not intend to go on to Senior High School. Begun in the seventh grade the gain derived from such study does not balance the loss in time to work that is undeniably practical.

Th next paper was read by Prof. Wm. R. Anson, of the Northeast High School, Philadelphia, on "Some Program Suggestions for Local Meetings." We have no report of this paper.

WHAT THE COLLEGES MOST DESIRE IN A MODERN LANGUAGE.

Please note that the subject which I have been asked to discuss is not what the Colleges desire accomplished in the modern language course in Secondary Schools, but what the Colleges regard of greatest importance in that course. The use of the superlative prevents me from describing to you the students of the Freshman class of the Colleges of Utopia and Nowhere, possessing the linguistic equipment of French, Spanish and German boys and girls, and even causing some embarrassment, perhaps, to the modern language teachers of those Utopian universities if they happened to be native Americans. In this discussion, we must remember that the Colleges are vitally interested in the work of the Secondary Schools, for if students in those schools are too well prepared, College teachers of the modern languages will be obliged to adandon the philanthropic work of teaching and devote themselves to some remunerative profession. By the term modern language study in the Secondary Schools, we must understand the prevailing course of two or three years.

First in order of the desiderata I should place an intelligible pronunciation of the for-

eign language. I do not mean by this a correct pronunciation, which is attainable, if ever, only after years of constant association with a foreign people. The niceties of pronunciation and intonation are beyond the ken and appreciation of nearly all of our students, but they should be able to read a foreign text with sufficient accuracy to be readily understood. Constant drill in pronunciation is one of our most irksome and discouraging tasks, but it is also one of the most important. I also belive that students should learn something of the mechanics of the production of foreign sounds, that they should be acquainted with the correct lip and tongue positions and that they should know that the same letter usually represents a different sound in English and in the foreign language that they are studying. Especially for students in French, I regard a knowledge of the alphabet of the International Phonetic Association and an ability to use it with a fair degree of accuracy of prime importance.

As a second desideratum, I should place an understanding of the spoken language on a familiar vocabulary. We cannot expect all students after two or three years of study to understand in its entirely a play in a foreign language and before a foreign audience, but we have a right to ask that such students be able to recognize when spoken, words and sentences which would be familar to them in printed form. We should like also to have our students taught the terminology of English grammar before they reach our care. We are willing to overlook an ignorance of the ethical or unethical dative or of the hortatory subjunctive which we may employ without making an impression.

We have a right to require that students who complete only a course of two years shall be acquainted with the fundamental facts concerning the structure of the foreign language they have studied. It is unreasonable for them to be expected to know the grammar of any foreign language after two years, but whatever they know, they should know thoroughly. It is my opinion that we attempt to cover too much ground in grammar in a short time, and that students are introduced to difficult subjunctive clauses before they are on intimate terms with the position of object pronouns. As a consequence of this haste to complete a grammar and pass to something more interesting, it frequently happens that the student completes his course with a good many vague notions concerning grammar, and with a disheartening inability to write even the simplest sentences correctly. It may be argued that it is necessary for him to have some knowledge of the subjunctive in order to read literary texts. That, of course, is true and I should be sorry to see our reading texts made up of books from which all difficulties had been eliminated. We all know what is meant by an active and a passive vocabulary, and it would seem reasonable to make the same distinction between active and passive knowledge of grammar. The active grammar would consist of lementary facts, common forms of nouns, adjectives, pronouns and the indicative of regular and common irregular verbs, rules for agreement, position of object pronouns, and the like. These we should require students to know and by this I mean that they should be able to recognize them when heard, to use them in oral questions and in translating from English. Why should we not be satisfied if the students in the preparatory school merely recognize the more difficult features of the foreign language in their reading texts, without attempting to translate into the foreign language sentences involving these principles? If the Secondary Schools would undertake to teach thoroughly the fundamentals in two years, I think that the Colleges would gladly assume the task of teaching the use of the subjunctive.

With respect to the reading of texts, we should be satisfied if approximately three hundred pages have been carefully read and made the basis for oral work. I think we all agree that no study of literature should be attempted in a course of two or even three years. The texts should be selected on the basis of simplicity of syntax, restricted vocabulary dealing with every-day life and adapted to awaken an interest in the foreign country itself. Such reading material will serve as a basis for further work, whether the student continues his studies in Collge or not.

Opinions differ as to the degree of fluency in conversation which we have a right to expect from those who have studied a modern language for two years in a Secondary School. I know that as a nation, we have no great aptitude for linguistics and that our pupils are too often self-conscious or timid in speaking a foreign language unless the teacher has succeeded in creating a foreign environment from the outset. Few of us can hope to attain the proficiency of Cleopatra who, we are told by Plutarch, used to speak in their own tongues to the Aethopians, Troglodytes, Hebrews, Arabians, Syrians, Medes, Parthians, and many others, among which may be included the Romans since she must have talked to Anthony in his own language. In spite of this, I think that we may expect those whom you send to College to be able to use and understan simple phrases which they have used and heard many times during their preparatory work, and this means an ability to conduct a conversation, halting if you will, within the limits of their active vocabulary. The extent of this active vocabularv and the degree of its activity depends upon natural aptitude or inaptitude, the size of the class and most of all, the teacher.

At the conclusion of the program several took part in the general discussion. Dr. Foster deplored the lack of interest in language work. Dr. Raschen commented on the loss of "parsing" in elementary schools, saying that it leads to slovenly thinking in any foreign language. He likewise condemned the "stoppage" of schedule holes by the insertion of anybody who has had any training at all in language.

Dr. Moore expressed himself as interested in Pennsylvania's problems, stating that they are also those of New York State.

The New High School program for Pennsylvania, which drops Modern Languages as

required subjects, came in for general criticism. Dr. Riemer explained that, though a member of the convention that voted for this change, he was recorded as being opposed to it. A committee was appointed to draft resolutions expressing the sense of the meeting as being opposed to the change.

The following officers were elected for next year:

President Dr. J. P. W. Crawford, University of Pennsylvania; Vice President, Dr. I. D. Foster, State College; Secretary-Treasurer, Dr. E. A. Schnabel, Northeast High School, Phila.; Secretary, Marian Armstrong, Latimer Junior High School, Pittsburgh.

RIGHT AND WRONG LESSONS.

As the twig is bent, the tree is inclined. In Holland, trees are trained to lie flat against a house wall like vines, or to have branches on ouly one side and be bare on the other; and shrubs are made into odd shapes such as dishes and chairs and animals.

Children's minds are almost as completely in the power of parents and teachers as are young trees and shrubs in the hands of the gardener. Train up a child to be kind, and when he is grown he will be kind. Train up a child to be cruel, and when he is grown he will be cruel.

A rubber image of an animal, one that when pinched makes a noise like a cry of pain, is sometimes given to a child too young to know about live animals and pain. When later the child pinches the kitten or kicks the dog he is putting into practice the lesson a careless parent taught him. Children are frequently punished for faults that are the direct result of earlier lessons in misbehavior.

Those parents who desire to lead their children's minds toward peace will not buy toy guns nor swords nor images of soldiers for playthings, nor will they dress small boys in clothes that are imitations of military uniforms. They will not permit portraits of generals to hang on their walls, nor books and pictures of war ships and battlefields to be chosen as gifts. They will not praise soldiers nor speak with admiration of military parades.

Pictures, banners, color and music have deceived both old and young as to the true nature of war, and the real business of serving as soldiers. War painted as it is, showing mutilation, agony, murder, hate and revenge is a horror. Parents should face the truth.

The spirit of construction can be cultivated by the use of toys that are chosen with that object in mind. Pictures of buildings and invention, pictures of kindness, pictures of helpfulness make as vivid and lasting an impression upon the youthful mind as pictures of destruction and cruelty and selfishness, and are better for the children themselves as well as for all those within the circle of their influence.

There are better books for children than ever before. There are books that recognize the heroism of firemen, life savers, teachers and nurses and those men and women who have been leaders in the world of ideas and true progress.

When the right seed is planted, the right crop grows.—*Western Humane Press Committee.*

RURAL TEACHER SCHOLARSHIP.

The American Country Life Association offers a scholarship of two hundred dollars with a view to stimulating the special preparation of teachers for the field of Rural Education.

Recipient: The rural school teacher who contributes the article describing the most effective work done by the teacher, making the elementary school a vital factor in meeting the needs of American country life.

The Article: Such an article may be the story of the adaptation of the curriculum, the development of community work, or the establishment of a closer relation between the school and the community.

Conditions: 1. The article must be based upon the actual, personal experience of the writer and may include practical plans for future development.

2. Teachers working in demonstration schools connected with colleges, normal schools or foundations are not eligible to enter this contest.

3. All articles are to be typewritten in order to facilitate the work of the judges.

4. The name of the contributor and the name of the place should not appear in the article. On a separate sheet of paper in a sealed envelope enclosed in the manuscript should be given the names and addresses of the following: The contributor, the school, the superintendent of the district or county, the chairman of the local Board of Education and the chairman of the Parent Teachers' Association, or a resident of the District, preferably a woman who is interested in education.

5. The article should not exceed 2500 words.

6. The American Country Life Association reserves the right to keep and use all contributions. Credit for authorship will be given for any material used, if desired.

Use of the Scholarship: To help defray the expenses incurred in further preparation for rural school work at any normal school or college.

Articles to be Sent to Kenyon L. Butterfield, President, American Country Life Association, Amherst. Massachusetts.

Time Limit: August 15, 1921.

THE COUNTY SUPERINTENDENT.

Hon. Philander P. Claxton, the United States Commissioner of Education, speaks plainly on men and women for the county superintendency when he says:

"In city and country, the success and efficiency of the public schools depend to a very large extent on the character and the work of the superintendent. This is so generally recognized that there is now, I believe, no city and no town of importance in the United States that does not have its superintendent of schools or administrative principal. In all the states there are superintendents of country schools, also county superintendents, or commissioners or superintendents of townships or districts.

"Important as it is to the city to have a competent superintendent of schools, it is still more important to the country, and it is no less absurd for the county superintendent to be elected by the people at large than it would for the city superintendent to be so elected and, therefore, responsible to some other body than the county Board of Education than it would for the city superintendent to be elected by some other body than the city Board of Education.

"Yet county superintendents are elected by popular vote on partisan tickets, by county courts not in any other way responsibly for the public schools, except perhaps that they may determine to some extent the county tax levy for schools, by commissions representing local school boards over the actions of which the county superintendent is supposed to have some kind of control, and possibly in other ways equally illogical and absurd.

"But, however elected, it may not be expected that competent men and women can be had to give their time to the streunous, difficult and responsible duties of the office of county superintendent at the salaries paid in a very large majority of the countries of the United States. Fully one-third of the 2,874 county superintendents are paid less than $1,500 a year and more than one-half are paid less than $1,800. Not more than 10 per cent. of them are paid as much as $2,500. In one state recently studied by the Bureau of Education more than one-half of the county superintendents are paid less than $1,000; only 5 per cent. are paid more than $1,500.

"All the conditions under which the country schools are conducted are such as to require of the county superintendent larger ability and harder work than are necessarily required of city superintendents except in the largest cities. Yet the average salary of county superintendents is much smaller than that of the superintendents of cities having much smaller numbers of children of school age.

"In all the states in which county superintendents are not elected by responsible boards to which they in turn are responsible and in which salaries are not large enough to make it possible to fill the offices with competent men and women giving full time to the duties of the office, legislatures should take steps at the earliest possible moment, making these things possible and requiring them. Nowhere should the salary of the county superintendent be less than $2,500, and in the larger counties the salaries should be at least as large as the salaries of superintendents in cities having as large school population.

"To enable the weaker counties to pay adequate salaries, and for many other reasons, the state should pay one-half of the minimum salary at least.

"Boards of education should have the power to select county superintendents from the country at large and should be required to select them only on the basis of professional preparation and ability.

"The offices of the county superintendents should be supplied with such clerical help as will make it possible for the superintendents to devote a maximum of their time to their administrative and supervisory duties, and county boards should be permitted to employ supervisors to assist the superintendents in helping the teacher with the work of organization and teaching, or else the state departments of education should have connected with them sufficient numbers of expert supervisors to render the needed help to the counties, making it unnecessary for the counties to employ supervisors at their own expense."

MOVING PICTURE INSPECTION.

MANY motion pictures producers, gathered in alarmed conferences in Los Angeles and New York, are now admitting that public opinion all over the land demands the elimination of films of vicious and criminal tendency. Mr. B. B. Hampton begins a recent bulletin by saying that the "aggressive demand for censorship has already reached such a point as to threaten the existence of the art and industry." He recalls that in February's Pictorial Review, he "stated that the screen was burdened with subtly salacious sex pictures and declared his belief that the industry was in-

curring the wrath of thoughtful men and women."

He might well have added that these "thoughtful men and women" belong to the same families and churches and societies that have killed, or at least outlawed, in all or nearly all our land, the following mighty evils, despite their financial and political power, namely: duelling, piracy, slavery, polygamy, prostitution, pugilism, the lottery, race gambling, the saloon, dope peddling, autocratic bossism, and Bolshevism. To those who have successfully fought these social evils with the methods of democracy, nothing is ever settled until it is settled right, and that settlement is sealed by law.

The reason why law is needed is well stated in Mr. Hampton's circular, though he does not see that implication. He says: "The public flocks to theaters showing spicy plays, and gives meagre attention to the house showing clean plays. The box office tells the story, and the exhibitor had to get into line with sex appeal pictures or go out of the business."

Hear! Hear! That is exactly the argument presented to Congress in 1916 by five great companies—Paramount, Lasky, Famous Players, World, and Equitable—for a "federal regulation commission."

How is anything but law to compel *all* producers to promise satisfactory reforms, and to keep the promise? If only two or three old or new companies refuse to agree, or break the agreement, the whole voluntary plan fails. One exhibitor in each town can wreck the plan. Besides, no power but government can see that agreements are really carried out.

In Mr. Hampton's new circular he quotes "14 points" of exclusion that Mr. Jesse L. Lasky has promulgated "to be observed in future pictures produced by his Company."

(1) No picture showing sex attraction in a suggestive or improper manner. (2) No picture dealing with "white slavery." (3) Stories built up on illicit love permissible only if they convey a moral lesson. (4) Nakedness banned. (5) Inviting dances eliminated. (6) Unnecessarily prolonged passionate love scenes. (7) No stories principally concerned with the underworld. (8) No pictures which might instruct the morally weak in crime methods. (9) No stories which may offend any religious sect. (10) No incidents showing disrespect for any religion. (11) Suggestive comedy barred. (12) Unnecessary depiction of bloodshed must be avoided. (13) No salacious titles nor advertising.

We welcome these promised reforms, especially as they were proposed regardless of what others may do. We judge they are about the same reforms that other producers are now agreeing to carry out. But a keen eye discovers some big loopholes. It is only "*future*" pictures that are to conform to these rules. There are enough now in circulation to curse the world for a generation. Some of these rules are specific and worth while, especially 2, 4, 7, and 8. In the others there are words that would require some kind of censorship to determine their application, such as "suggestive," "improper," "inviting," and "unnecessarily."

In a letter accompanying this circular Mr. Hampton says:

"I have just returned from a meeting at the Hotel Alexandria with Wm. A. Brady, president of the National Association of the Motion Picture Industry, and Jesse L Lasky, vice-president of the Famous Players-Lasky Company. Mr. Brady is now prepared to say to you that the motion picture industry has cleaned house. Mr. Lasky endorses that statement. . . . Now, Mr. Crafts, I sincerely believe it is up to you to join with Mr. Brady in a 'truce' for one year. The leaders of the industry pledge themselves for clean pictures. You pledge yourself to work with them to *educate* the public to support producers and exhibitors of clean pictures. You pledge yourself to suspend your work for censorship for one year."

Out of these communications and many other friendly co-operative letters I have received from producers who admit a clean up of films is necessary I adopt two propositions: first, that in the work of cleaning the films more use should be made of police powers—not leaving so much to censorship; second, that censorship is too indefinite. It would be fairer to the film makers and better for the public if the producers were notified by specific laws and ordinances that certain specified lists of pictures are altogether banned—such as the Lasky and Goldwyn list, but more specific—leaving for censors to study at the cost of exhibitors only pictures that are not specifically barred or permitted. Real censorship is not proposed, as court appeal is allowed.

I challenge any motion picture producer, exhibitor, editor, or opposer of government supervision of motion pictures to disprove the proposition that government advance inspection of films is equally if not more necessary to public welfare than the advance inspection of the packing houses.

We do not wait till bad beef kills, and justify our neglect by saying it has served as a "warning." We do not let packers name and support their own "National Board of Review." Government inspects

the beef before it kills. City, State, or National Government must cut out the "bad beef" of the movie programs—usually in some side dish when not in the chief scenario—which is poisoning the public mind of a self-governing people. The Supreme Court sweeps aside as absurd the plea that advance inspection of films is interference with free speech.

All other great financial interests engaged in interstate commerce have governmental supervision. It is against reason to suppose the great motion picture interest can long remain the only exception when it deals, not merely with property and health, but with the nation's choicest security for the future, the character of its youth.

The motion picture interest was right in 1915 in asking one high grade "federal regulation commission." The substituted attempt to "kill all censorship" is failing. We may be driven to ask Congress to investigate the political activities of motion picture agents. Government by movies, for movies, will invite even more "wrath" than bad films. The untruthful and unpatriotic "blue Law" campaign of falsehood about American Sunday rest laws, that motion picture men have forced on the American press, is becoming a boomerang. Let us all ask the new Congress to appoint an Interstate Film Commission, patterned on the Interstate Commerce Commission, to umpire fairly between the motion picture interests and the people.

If the movies were cleaned it is thought by good men familiar with the situation that it would banish nearly seventy-five per cent. of those now on exhibition.

SCIENCE SECTION.

HIGH SCHOOL DEPARTMENT.

THE meeting of the Science Section was held on Tuesday morning, December 28th, in the Technical High School. A class of fifteen pupils of the eighth grade was taught for a period of thirty minutes by Mr. Frank M. Murphy, of the Irwin Avenue Junior High School, N. S. Pittsburgh, preceding this talk, to illustrate actual class-room procedure in teaching general science in the Junior High School. The project method was used. The problem was, "How does this Fire-extinguisher (soda-acid) work?"

GENERAL SCIENCE IN THE JUNIOR HIGH SCHOOL.

In the Irwin Avenue Junior High School in Pittsburgh, the General Science taught aims (1) To introduce boys and girls to a scientific study of their environment; (2) To lay foundations for personal and community health; (3) To teach boys and girls what they need; and what they can use; (4) To give boys and girls that science which is best for them at age, regardless of whether they take any further science.

To these ends we are constantly studying our pupils, and revising our course of study, casting out those topics which we find interest the pupils the least, and putting in those which interest them most.

Work of the 7th grade. Two 45-minute recitation periods per week required of all pupils for the year. During the first semester the general topic of Fire is considered. The second semester, Air is taken up. In this as in the 8th grade we correlate with the work in Geography, particularly the sections in Geography devoted to Astronomy, Weather, convection currents in air and water, etc.

Work of the 8th grade: Two periods per week for the year. During the first semester, the study of Water is taken up. In the second semester Chemistry in the Home is the main topic.

Work of the 9th grade: Five periods per week thruout the year. One period per week is devoted to Science Clubs. These clubs hold meetings at which they demonstrate projects, give talks, show slides, make trips to industrial plants, or take part in discussing science problems. Time forbids our discussing this interesting phase of our work further.

During this year the following units are taken up: Electricity in the Home; Automobiles; Pittsburgh's Industries; (Glass, Iron, Coal, etc.) Pittsburg's Public Health; (Intensive study of the City Department) and the History of Science. As to this last item, we believe that there should be some history of science, given during the course, and suggest the following names of great scientists to be used at the proper place in connection with the work: Galileo, Harvey, Torricelli, Guericke, Priestly, Lavoisier, Franklin, Galvani, Watt, Pasteur, Fulton, Faraday, Edison, Monsieur and Madame Curie, Bell, and Morse. Other "grand old men" of science will doubtless suggest themselves to you. Short, interesting, readable, biographical sketches should be given. Where possible the original experiments should be performed. Special emphasis should be placed on the endeavor to give the student at the end of the 9th year an idea of the progress and development of science from the beginning.

(5) We will take just one topic, namely, Fire, to show the method of treatment of all the topics. When we begin with Fire (which we believe is the boys' greatest problem) we take up this subject in all its ramifications. We start with this Project, "How do you build a bonfire?" From this comes a whole series of problems such as: Why does fanning a fire aid it? How did they start a fire before matches were invented? What is Oxygen? To save space we will put the rest of the Projcts in topical form: Oxidation, kindling temperature, Ventilation, Carbon dioxide, the fire extinguisher, fire prevention, convection currents, the furnace, methods of heating, conduction of heat, radiation, expansion of solids, liquids and gases, journeys made by molecules, thermometers.

General Science in the Junior High School

occupies a place somewhat analogous to that of General Science in the Senior High School 10 years ago. Very few schools have a program for grades 7, 8 and 9. It is pioneer work. We would be very glad to hear from other schools engaged in this same Project. The question is not whether we shall *have* Science in the Junior High School, but what shall the content be? There can be no doubt that children from 12 to 15 years of age are very near to the spirit which has prompted the great masters of science. These children are the *real* investigators.

"The native and unspoiled attitude of childhood, marked by ardent curiosity, fertile imagination, and love of experimental inquiry, is near, very near, to the attitude of the scientific mind."

It is not desirable that each teacher shall closely adhere to the course of study. We do not believe in letting the course of study interfere with our Science work. Just now we are studying the pamphlet recently sent out by Dr. Finnegan, on the efficient way to cook with gas in all the classes. In the Spring when Nature begins to open the buds, we will study the parts of the flower, and the wonders of fertilization. Next Autumn, as the caterpillar puts in his appearance, we must consider his life history. Dr. John Dewey, "How We Think."

The general theme of the meetings this year of the State Educational Association is that of a constructive criticism of the State program, as outlined by the Educational Congress.

The Educational Congress, very wisely, it seems to us, adopted the report of the Commission on the Reorganization of Secondary Education, appointed by the National Education Association, for a state program in Science.

This report, Reorganization of Science in Secondary Schools, is just off the press and may be had by asking for Bulletin No. 26, Dept. of the Interior.

It was our privilege to be somewhat familiar with this report in its advanced form; and we wish to put ourselves on record, as being squarely behind Dr. Finnegan, and threfore at the same time with the N. E. A. Report, in the matter of Reorganization of Science in Secondary Schools. Indeed, for over 2 years in mapping out our course in study in Science in the Junior High Schools of Pittsburgh, we have very largely followed the general aims and purposes laid down by this N. E. A. Commission.

Prof S. H. Williams, of the Slipperry Rock Normal School, followed on "The Growing Sense Of New Values In Science Teaching In The Normal Schools Of Pennsylvania."

GROWING SENSE OF NEW VALUES IN SCIENCE TEACHING.

In the brief allotment of time to the discussion of this subject I feel powerless to present the different phases of the various branches of Science which are now incorporated in the Normal School course of study. However, I shall endeavor to give an opinion as to values of the various sciences to the prospective teacher.

It is obvious that with the advent of the new course of study the scientific subjects must be concentrated essences of greatest caloric value and that the instruction must be increased to the *n*th degree of perfection. The impetus given by the Department of Public Instruction is the vitamine which the curriculum has needed for some time in order to sustain the lives and purposes of the Normal Schools. To my idea the new course of study has come just in time to stop the leaks of wasted time and energy which have contributed largely to the inefficiencies of the public school system.

In the Normal Schools there is an ideal condition for teaching Science in a way that other schools may not approach the subject matter. There are the most favorable auspices for teaching Science so that it will more broadly affect the lives of a great number of individuals. By this I mean that the Normal School instructor is not hampered, or shall I say hindered, by the concern about what has preceded or what is to follow. In other words, High Schools have been forced to arrange their courses so as to meet College entrance requirements. On the other hand, the College must necessarily take into consideration the bread and butter element. They have been forced to arrange the content in a technical and abstract way so as to meet the needs of the manufacturer.

Fortunately we do not have to consider entrance requirements to higher institutions nor must we consider the needs of the manufacturer, but the needs of the individual in his endeavor to live the most efficient life. It is not the purpose of Normal School science to train technical chemists, bacteriologists, or physicists. And the courses will not be arranged with the idea of preparation for the College or University.

The main purpose of the sciences in these schools is to give to prospective teachers a foundation which will better enable them to fulfill the duties of a broad-minded teacher. It will be the primary purpose of these courses to familiarize the teacher with the functioning of his environmental conditions in such a way that he will be able to help others interpret them.

Türck in his "Man of Genius" states that Perfection is the capacity for existence. It then follows that a stable knowledge of science will enable the individual to better meet the needs of his environment. Of course there will also be an endeavor to develop the "Scientific Habit" which Huxley says is to "observe clearly record accurately and infer justly," as well as to acquaint the individual with a fund of information about nature and the ways to obtain more knowledge.

It is obviously the duty of the College to prepare its students for the technical positions in the industries. It is just as obvious that the High Schools will prepare their students for College entrance even though this is catering to the minority. High School science can do little more than give a general knowledge of general application. The Nor-

mal Schools will attempt nothing more than to enlarge the latter and to train the individual to appreciate the part played by scientific knowledge in life generally. To be more explicit it will be the function of scientific training to give a breadth of view and especially a wide appreciation rather than technical equipment.

How will the ascribed subjects accomplish this? In the present course of study provisions have been made for an elective College Chemistry, Nature study, Physics, General Science, Biology, Anatomy and Physiology, and Histology. Certainly there is much in Chemistry that aids the student of Nature. There is much that will be of value in his economic life and in his struggle against disintegration. Food content and combinations are alone of inestimable value. An appreciation of medicine, source of substances, and mixtures, have their place in every day information. The medicine cabinet in the school room may be an abomination if the teacher has no knowledge of chemical mixtures. For instance, when a child takes ill one must exercise great care in administering antidotes. A child with a weak heart must not be given a substance which is a heart depressant. A little fellow once went to a neighboring farm house during the lunch hour and imbibed too freely of buttermilk. In the course of the afternoon session he complained of stomach ache. The teacher in her kindly endeavor to help the little fellow administered a large dose of sodium bicarbonate. From the way the child frothed at the mouth and nose there must have been a terrible disturbance in his department of the interior. The use of home-made and patent medicines is dangerous unless the "good samaritan" possesses a general knowledge of incompatibility in chemical mixtures.

In interpreting natural phenomena Chemistry plays a very important part. For instance how many of you wondered in your early life what caused the leaves to turn color in the fall? After obtaining a knowledge of Chemistry you were able to explain how and why this phenomenon is produced. In the early experience of every child he learns that by mixing blue and yellow pigments a green color is produced. The chlorophyll in plants is composed of these pigments; a yellow pigment called carotin which imparts to carrots their characteristic color, and a blue pigment called cyanophyll because of its color. In the fall when the sap descends the chlorophyll breaks up into its two respective components, the yellow predominating, causing the change in color of the leaves. Does this knowledge of one of our most evident phenomena interest the student? Especially the inquisitive child?

The establishment of College Chemistry as an elective is a move in the right direction and the teacher who acquires a knowledge of Chemistry will be able to motivate his work by his ability to explain commonly misunderstood phenomena. We must not dwell too long on the technical side of the subject but give that part which is best adapted to the interpretation of natural wonders. I shall not burden you with my ideas as to content but let us hope that teachers will carefully select those things which are of most worth.

Nature study is by far the most important and perhaps most difficult in the curriculum. What it should contain is a matter concerning which there will be a variety of opinions. There are so many interesting things in nature that it is hard to state which should be used. One thing is certain, it should be broad and to a large degree scientific. Any one who has studied nature realizes the relatively small amount a beginner can learn in one year's study. In this subject the student must learn the scientific habit or learn how to learn more through his own efforts. This is a faculty which few people possess. A large number of us are unable to trace the identity of a flower, tree, or insect, without the aid of a picture book. Few persons really know the differences between a bug and any other insect.

To most persons Nature Study means the taking of long tiresome walks on a dusty road or tramping through a brier-infested wood. The trouble with so many science teachers is that they think one has to get on a train or trolley and journey to distant parts in order to study nature. *If we can convince the teacher* that when he opens his door he is face to face with nature we will have overcome a most discouraging illusion. The ant hills of the school yard, the trees, spiders and their webs, and a thousand other things which will furnish a wealth of interesting revelations for the student are at his very feet. We should follow the same method as in Geography; acquaint him with his intimate surroundings and enlarge the scope as his capacity increases.

I once went into a certain industrial city to teach Botany. I was disappointed to find that there had been no time allotted to field study. Upon inquiry concerning this I was met with a rather pitiful smile and the question: What is the use? there is nothing to find unless you would go out of the city. They told me that perhaps on Saturdays I migh induce those students who were not working to accompany me on some trips to the country. In the following weeks I scoured the city, making notes on the trees present and reported that within a radius of two miles of the city hall I had found fifty-eight species of flowering plants and a great number of trees, noxious weeds and grasses. It reminded me of a story I had once read in a second or third grade reader entitled "Eyes and No Eyes." One of the aims of a Nature study course should be to develop the powers of observation; to open the eyes of the observer to the wonderful things around him. So in the prospective teacher we shall try to develop first the interest, then the seeing habit (which will automatically follow interest) and finally the scientific method of procedure. To develop interest one has only to study adaptation in plants and animals, to lead the student carefully to observe the various ways flowers have of protecting themselves, and of their various methods of seed dispersal. I have found few students who have not be-

come intensely interested in the adaptation for receiving pollinating insects and excluding the smooth-bodied robbers that return nothing for the nectar they steal. The student is pleased to learn of the adaptations in the feet and bills of birds; the methods of defense in animals, protective coloration; the evolutionary series of development, and the hundreds of other things which you know to be fascinating.

The nature study laboratory should represent an accumulation of nature's products. Students like living things and will watch them closely. Animals in cages, aquaria with the various animals and plants of pond and stream, collections of fall fruits and nuts, etc., will add greatly to the plan of studying nature first hand. If you will pardon a personal reference may I say that at Slippery Rock we have a number of aquaria with every pond animal and plant that we have been able to keep alive. The students derive great pleasure in watching the development of the snail's eggs, fish (we have only stream fish), mussels, tadpoles, mice, guinea pigs, etc. All of these things except the cavies and one set of fish eggs, which were supplied by the state bureau of fisheries, were gathered or prepared by the students.

We have a collection of birds' nests, an herbarium, cases of the different insect orders, etc., nearly all of which is the work of the classes. The project method is carried out extensively. Type dissections have been dispensed with, but we study characteristics for the purpose of identification and classification.

Persons whom I knew to have entered the class with a reluctance exhibited unusual interest on one of our field trips when we studied the utricularia or bladderwort and its method of entrapping the aquatic larvae. One boy in particular who lacked interest at first accompanied me on a trip to Lake Erie. There I called his attention to the vallesneria spiralis and its method for holding its flower above the water level. He pondered some time over the coiled stem and its adaptation for contracting or elongating with the change in water level. He chose as a project water plants and is now very dependable in identifying nearly all of our common species. To point out a few of these marvelous things to many a student will create in him an interest which will manifest itself in further investigations on his own initiative.

Another course of College grade that is provided for in the schools offering instruction in Health Education is histology. This will differ somewhat from the College courses in plant and animal histology but will add greatly to the sciences offered.

I should like to see installed an elective course in Commercial Geography and also a course in the Teaching of General Science. The demand for teachers trained to give instruction in general science is great. From present indications the subject will be shifted to the Junior High School. Most of the teachers in this school will be graduates of the Normal Schools.

One difficulty, as I see it, will be in persuading the Colleges to accept the Normal School courses for advanced standing in case the Normal School graduate desires to work for a degree after he has taught for a year or two. There should be no hesitancy on their part to do so. The facilities which the Normal School will have for teaching science and the acquisition on their part of well trained and well versed teachers will make the instruction as efficient as the average College. My experience in teaching in High Schools, Colleges, and my brief experience in the Normal School, leads me to believe that it will not be difficult to establish the desired cooperation in the training of teachers.

In conclusion, let me say that I am delighted with the new program. It is to be hoped that all of us will cooperate with the State Department in putting over the proposed program for the betterment of our public schools. We of the Normal School hope that the dream of an ultimate four year course in the Normal School granting a degree in Education, will be realized. There is certainly a need of better trained teachers and it is up to the state to provide an institution where teachers may be trained at a minimum of expense to them.

Miss M. Louise Nichols, Head of the Science Department in the South Philadelphia High School for Girls, read the next paper on the

SIMPLIFICATION OF SCIENCE TEACHING.

A housekeeper in planning a meal needs to consider, besides the quality of the food, its cooking and serving, the appetite of the diners, their age and condition of health, and also the time which will be required for its preparation and consumption. A teacher, likewise, in planning the intellectual diet of her pupils must consider its quality and the manner of its presentation, the age and condition of the pupils, their mental appetites and the amount of time at her disposal. The teacher's aim, like the housekeeper's should be to offer something nutritious and palatable while at the same time economically and easily prepared.

There are several ways in which the teaching of science is complicated, and this task of the teacher made more difficult. Some of these are common to all subjects. Children gather in high schools for intellectual nourishment in groups of thirty to forty. Their mental ages and powers of assimilation are not uniform. Their appetites for ideas vary markedly. A second difficulty lies in the fact that children of high school age are at the adolescent period when bodily changes are rapidly taking place; new interests are crowding upon the attention and concentration is difficult. A third obstacle lies not in the nature of the pupils, but in the nature of the subject taught. Modern science has developed with such astonishing rapidity since its beginning in the eighteenth century that there is an embarrassing wealth of material from which to choose in planning a course of study. In the fourth place a variety of demands is made upon the modern high school. The

pupils ask of the schools, "Give us something to help us earn a living," the employers "Give us better employes," while the more enlightened portion of the community demands better citizens. The teacher is thus faced with the task of selecting useful material within the comprehension of the pupils and of presenting it in such a way as to hold the attention and interest and compel the effort of a non-homogeneous class at an unstable age.

The first difficulty, the lack of uniformity in mental ability, can be met, in part at least, by the application of intelligent tests. A group of sixty to eighty children can thus be separated into two groups differing in the nature of their intelligence, and because more homogeneous, easier to teach.

In the solution of the problem concerned with the presentation of subject matter in attractive and useful form General Science has already rendered valuable assistance. Whenever the experiment has been tried of presenting to the children situations such as arise in the course of their daily experience and of showing them how these situations may be met by the application of "organized common sense" not necessarily subdivided into chemistry, physics or biology, interest has been shown and curiosity aroused.

Whatever criticisms have been leveled at this method have not been on the score of a lack of appeal to the real needs of the children. They have been rather that General Science tends to be overcrowded and the material arranged without sufficient coherence. These criticisms are just, and it is true also, that some of the subject matter has been beyond the comprehension of students of eighth and ninth grades. Since the idea underlying the movement towards General Science has proved its worth, it would seem that a concentration of effort to remedy its defects should be the next important step.

Before proceeding to the simplification of subject matter it is essential to determine what information is so necessary in satisfying the legitimate demands of the community that it ought on no account to be omitted. I think few educators will be found to disagree with the conclusion of the Committee on Science Teaching that health and home making are two subjects in which sound instruction must be given if the schools are to fulfill their duty to the public.

In the lower grades the subject of hygiene is taught chiefly as rules to be followed and rightly so, for physiological processes are complicated and not really comprehended by younger children. In the high school, however, the aim should be somewhat different. There the students should be led to appreciate the reasons underlying the rules of hygiene to the end that they may obey them with more intelligence. In an introductory science course a foundation can and should be laid for this more thoro understanding. For example, a real comprehension of digestion and absorption is possible only if the conditions of solubility, emulsion and saponification are understood, the nature of physical and chemical change, acid and alkaline reaction and osmosis and the location and appearance of the digestive organs. The utilization and storage of food in the body can be better appreciated if a study of the chemical nature of food has preceded. The production of carbon di-oxide in the body needs for its comprehension a previous acquaintance with the processes of oxidation and combustion. A realization of the desirability of correcting eye defects requires some knowledge of lenses and the laws of refraction and of the laws of reflection upon which proper illumination depends. The subject of reproduction in human beings is more sanely and healthfully appreciated if the nature of plant and animal reproduction is already familiar. If I am right in assuming that it is the business of the high school to give reinforcement and background to rules of health already learned these topics can not be omitted from an introductory course in science.

The science concerned in home making includes many problems which in themselves are almost or quite as complex as the problems involved in a proper understanding of physiology and hygiene, and I believe that time will be saved and efficiency in teaching gained if the fundamental facts and principles are first of all simply presented. Take, for example, so common a process as the making of bread. Its complete understanding involves knowing about the nature of the yeast plant, about chemical change in general and the change of starch to sugar and sugar to alcohol and carbon dioxide in particular. It requires also a familiarity with the expensive effect of heat, of the nature of evaporation and of degrees of volatility. If simpler projects are dealt with in an introductory science course while this and similarly more complex projects are presented in a later course the children comprehend more readily and in addition, have the pleasure and profit of applying something already learned to gain new knowledge.

If teaching is simplified by grading the subject matter from the less complex to the more complex, there is also something to be gained by introducing topics in the order of their interest, from the nearer to the more remote. Both these ends are, I believe, better served by building the entire high school course in science about the pupils' real present and future needs and interests, rather than by confining this method to the introductory science course and breaking the later science instruction into the more or less artificial divisions of botany, zoology, physics and chemistry. There are some things that are simpler and more concrete in each of the four sciences; there are others that are more complex and abstract. House heating, food testing and window gardening are relatively concrete and immediate in interest; the development of power for manufacturing and transportation, the laws of heredity in plants and animals, the destructive distillation of coal-tar, the movements of the heavenly bodies are relatively less concrete and more remote in interest.

The nearer interests of boys and girls are those concerned with health and with home,

therefore these should come first on the program, to be followed in the later years at high school by topics concerned with the wider interests of the community and the world. I firmly believe that the function of high school science is to give young people a conception of the relation of science to the solution of life's difficulties, and that specialization in the individual sciences should be left to technieal schools, colleges and universities. I believe, also, that the natural, the psychological method of approach will tend to unify and to simplify science teaching.

Supt. Floyd Awell, of Beaver Falls, presented the following paper on

THE SCIENCE PROGRAM.

The necessity of reorganizing the courses of study in all branches of both primary and scondary schools has rapidly been gaining recognition during recent years. That much of our work of past years has been that of drilling into the minds of our boys and girls dry and abstract facts with too little attention given to focusing this instruction on the future life and growth of the pupils and their duties and responsibilities as citizens is now an accepted fact. The opposite fact of motivating and vitalizing the work of all branches of study by means of the problem method, the project method, and other agencies, is rapidly being accepted.

In none of the courses of study has the necessity of reorganization been more urgent than in the science courses and it is gratifying to know that this need is being met. It is my understanding that a portion of my time is to be given to a discussion on the report of the Science Committee of the Educational Congress recently held. The report of this committee agrees quite closely with the report of the National Educational Association as given in bulletin number 35 of 1918, U. S. Bureau of Education under the title of "Cardinal Principles of Secondary Education." In this bulletin seven main objectives of education are designated upon which work in secondary schools should be focused. The National Committee believes that the work in science should function most favorably in six of these objectives, namely, health, worthy home membership, citizenship, the worthy use of liesure and ethical character. Four of these objectives are emphasized in the report of the science committee of the State Educational Congress which indicates that the leading science teachers and thinkers of our entire country are approaching agreement on the work of reorganization. This fact augurs well for rapid progress during the years that are immediately before us.

Doubtless, the high school courses in science must be arranged with the thought in view that each course or subject should give the pupil power to better pursue the following courses; that the sequence of arrangement and organization should bring about the progressive development of the pupils and at the same time that each year's work should be the most valuable work for that particular year, keeping in mind the fact that many students withdraw from high school each year and are thus deprived of the advantages of completing the full science course.

The committee recommends a science curriculum for each of the four following types of high schools: a. The largest four year high schools usually enrolling over 500 pupils; b. The four year high school of medium size, usually enrolling from 200 to 500 pupils; c. The small high school of 200 or fewer pupils; d. The junior-senior high schools. In all of the sequences recommended by the committee, general science is suggested as the first course to be offered. For the four-year high school it is scheduled for the first year's work and for the junior-senior high school it is scheduled for the seventh or eighth year. This arrangement seems to be the best, being generally accepted and permitting of little or no ground for discussion. This course, however, should not be a substitute for any of the courses offered in the following years, but it should be a means of discovering the interests and abilities of the pupils in further science, including vocational courses. It should also be the most valuable course for pupils who for various reasons can take only one year of science in high schools.

The recommendation for the second year's work is biological science to be given in the ninth year of the junior-senior high school and in the second year of the four year high school, the small four year high school, and the small junior-senior high school, the problem of limiting the different pupils in electing the particular biological science that meet their special needs, and interest arises. The recommendation for the third and fourth years of the science course may be stated to be chemistry and physics, accompanied by a sufficient number of differentiated elective courses to meet the requirements of the different committees. With the types of smaller high schools mentioned above the same difficulty is again encountered in providing the additional courses. Many of these high schools are limited to two, three or more teachers and the finance available for maintenance, thus making it much more difficult to offer courses in keeping with the needs of the respective communities than in the large high schools. This, however, is the problem of the principals or superintendents in charge, and does not invalidate the recommendation of the committee.

Another problem affecting the high schools of all types but the smaller ones more particularly, is that of co-ordinating the science course with the courses of the other subjects of the high school corriculum. A corriculum of sixteen units of study of 120 sixty-minute recitation hours, each for work requiring preparation outside of class, is generally made the basis for graduation. With four units of work required in English and a like number in history and the social science—and this amount is not too much—only eight units are left for science, mathematics, foreign languages and the vocational subject, or if the pupil's needs and interest should demand four full units of science in addition to the eight units of required work, only four units re-

main for mathematics, foreign languages, etc. It is very probable that there are those who still contend that a situation of this nature does no make sufficient place for mathematics and the foreign languages, however such position is scarcely in keeping with present day thought. Eight units of work in English, history and the social science are doubtless imperative in the present condition and development of our country, and differentiated elective courses to meet the demands and requirements of different communities should be provided, from which the other eight units may be selected.

The officers elected for 1921 are: Chairman, S. H. Williams, Slippery Rock Normal School; Vice-Chairman, J. B. Rishell, Williamsport High School; Secretary, Alta Williams, Altoona High School.

HIS CALL TO PREACH.

THE carpenter set up his ladder against the house, and prepared to make the modest repairs which the church trustees had ordered upon the rented cottage which served as a parsonage for the new minister. To the minister's small boy the occasion was one of importance and delight. He played round the foot of the ladder, and plied the carpenter with questions. What was this tool for, and how did he use that one. Would that saw cut a man's leg off, and all the other foolish questions which a boy with intellectual curiosity will ask of any man who is willing to listen. The carpenter was a kindly man and answered the boy's inquiries, and now and then asked a question of his own.

"What's your father's business, sonny?" he inquired.

"He's a minister," said the little lad.

"Well, now, that's fine, ain't it?" said the carpenter. "Just to think of living to do good; telling people how to do right, and sort of helping them to do it! Nothing in the world could be so fine as that!"

The boy looked up, a little surprised at the warmth of the carpenter's word. To him it seemed a much finer thing to be a carpenter, climbing tall ladders and working with sharp and shiny tools. The man, with his foot on the ladder, went on:

"Yes, sir, that's the very finest thing that can be. Now being a carpenter's a great thing. Jesus was a carpenter, and if a man can't preach, why, there isn't anything better than to be a carpenter. But to be a minister, and just to live to help people to be good, why, nothing in the world could be so fine as that!"

The words made a deep impression on the boy. He received them as from one of high authority, a man who could erect tall ladders, and could climb up on houses, and could make things out of wood. Not for a moment did he doubt that to be a carpenter was one of the best things in the world, and to have so great a man speak so of his father's profession set him to thinking.

This small boy had been born into the family of a home missionary, and had spent his few years in moving from one small parish to another. He had not failed to honor his father, nor to count him the greatest and best man in the world, but his father's profession on the one hand had been the simply natural thing, and on the other had represented certain restrictions and hardships for the boy. The word of the carpenter gave him a new reverence for his father's profession, and that which it represented.

Years passed, and the young man saw things in a different perspective. Yet all through his college course, as he thought of his own life-work, the words that he had heard in boyhood came back to him, and even with a profounder sense of their truth.

One day he stood before a council of ministers to be ordained to the ministry, and was asked to relate his Christian experience. He told of the home influences, and the early life of piety and of aspiration, of his father's hopes and his mother's prayers, and then told the incident as here related. Said he:

"I do not know how it will seem to you, or whether I can make you understand just how that word impressed me as a boy, nor how the feeling that it inspired recurred at intervals through the years. But I think no one incident has meant more to me. In a very true sense, I think I can say of it that that was my call to preach. It gave me a new measure of my father's life, and that for which he wrought and sacrificed; and I have been unable to escape the conviction that nothing could be so fine as that."

"The philosophic mind brings to the man who has a comprehensive view of life and life's task, of its relation to the world and the larger interests that transcend our human concern. That type of mind is peculiarly well adapted as an equipment for a man who is charged with the administration of a great and influential institution for the education of youth."

"Educate more for individuality, for character, and not for mere scholarship," says John Burroughs. "Modern education is too analytical and not enough synthetical. We want wholes and not parts merely; men and women and not mere scholars.

THE FINEGAN EDUCATIONAL PROGRAM.

ON Thursday, April 21, 1921, the Senate passed H. B. No. 1016 by Mr. Edmonds without a dissenting vote. The preceding Monday, the House of Representatives, making a special order of this Bill, passed it by a vote of 200 to 3. On April 28th Governor Sproul signed the Bill. The educational program for the State as drawn up by Dr. Thomas E. Finegan, is a part of the law of the Commonwealth of Pennsylvania.

In the state-wide educational campaign which has been carried on vigorously for two years and which has culminated in the enactment of Dr. Finegan's program, recognition is due to the friends of public education who have espoused the cause and have created and crystallized educational sentiment.

Particular recognition should be given to the following organizations:

1. The Pittsburgh Chamber of Commerce for this resolution: The Chamber of Commerce of Pittsburgh heartily indorses House of Representatives Bills Nos. 912, 767, 1016, 1054, 1406 and Senate Bill No. 879, specifically, and Doctor Finegan's program for increased school appropriations from the State, generally. It urges the members of the General Assembly to speed the passage of these bills and to find revenues for this cause, and will regard each member's affirmative action on this legislation as a conscientious effort on his part to give to the children of the Commonwealth a square deal.

Signed by its committee, authorized and appointed at a special general meeting of the Chamber of Commerce at which the above program was unanimously indorsed.

Thos. A. Dunn, Vice-Chairman, Jno. McLeod, Taylor Allderdice, A. Leo Weil, Marcus Aaron, W. L. Monro, Chairman.

2. The Philadelphia Teachers' Association for its publicity work, particularly for the pamphlet, "Will You Make Pennsylvania the Keystone State in Education?"

3. The Erie "Drive" which secured endorsements by the Erie Associated Charities, the Erie Board of Commerce, the League of Women Voters, and the Parent-Teacher Association.

4. The Allied Commercial and Industrial Associations of Philadelphia, which sent in endorsements by thirty organizations, the High School Men's Association and the Women Teachers' Organization.

5. The Pittsburgh Teachers' Association, The Schoolmen's League and the Pittsburgh Principals' Club, for its pamphlets entitled, "We Are at the Forks of the Road," and "The Situation."

6. Superintendent Samuel Hamilton, of the Allegheny County Schools, and Superintendent William M. Davidson, of the Pittsburgh City Schools. Under their leadership, 37,637 voters in Allegheny County and the Pittsburgh District signed petitions to the General Assembly urging that revenues be found for Dr. Finegan's program. Numerous addresses were made before women's clubs, churches, ministerial associations and educational bodies. The Congress of Women's Clubs secured over 8000 signatures to the petition.

7. Many District and County Superintendents. Munhall sent in a petition with 666 signatures, secured by the seniors of the high school, Beaver County sent 5000 endorsements, Westmoreland County, 6000. These are but types of the results secured throughout the State.

8. The State School Directors' Association through the President, Mrs. E. S. H. McCauley, of Beaver, the Secretary, Mr. D. D. Hammelbaugh, of Harrisburg, and the Secretary of the Legislative Committee, J. Buell Snyder, did effective work. They appeared before the Governor and education committees and secured many endorsements. The following endorsement from Fayette County is typical: In a joint meeting of the Fayette County Directors' Association and the Fayette County Teachers' Association held in the Court House, April 2, in Uniontown, the body went on record as favoring the Finegan program.

The special features which were particularly pointed out and endorsed are as follows:

1. House Bill, No. 912, by Mr. Sprowls, providing for strengthening the compulsory attendanace law.

2. House Bill, No. 767, by Mr. Harding, providing for lengthening the school term as follows: minimum term of all school years in first, second and third class districts, one hundred and eighty days. In districts of the fourth class, one hundred and fifty days for the term beginning 1921, and one hundred and sixty days thereafter.

3. House Bill, No. 1016, by Mr. Edmonds, providing for the repeal of the Woodruff Salary Law; the new law making mandatory certain minimum salaries for the teachers throughout the state as specifically set forth in the bill.

Committee: J. Buell Snyder, Director; Albert Montgomery, H. S. Principal; Thomas Means, Supervising Principal; Ira C. Sutton, Director; T. L. Robinson, Director, and A. Van Horn, Director.

9. Teachers' Organizations everywhere. The following endorsement and petition from the Johnstown Principals and Teachers Conference is a fair sample: At a meeting of duly elected representatives of the

teachers from the various buildings of the Johnstown Public Schools, March 21, unanimous indorsement and approval was given to the Salary, Qualifications and State Aid Bill, No. 1016, introduced by Mr. Edmonds.

The feeling of the meeting was that the proposed legislation has as its outstanding feature the raising of the standards of the teaching profession; that all the fiscal provisions of the bill are but a means to this end; and that without an attractive remuneration of teachers there cannot be adequate incentive to make the proper preparation to teach.

It also was the sentiment of the Johnstown teachers that they were opposed to any scaling down of the State appropriation to make the measure effective. They believe that this bill represents the minimum of State aid of the intolerable conditions which cause Pennsylvania Schools to rank twenty-first in the United States. The teachers, therefore, respectfully petition that there be no emasculation of the bill or of the appropriations. They feel sure that from the unbounded resources which the State possesses and from the numerous tax measures that have already been introduced in the House, members of the Legislature will be able to find the revenues for the increased appropriations.

The teachers feel assured that they do not stand alone in the position which they have taken. They believe that their position represents as well the sentiment of the community which they serve.

10. The Organized Republican Women of the State.

11. The League of Women Voters, under the leadership of Mrs. J. A. Martin, did notable work in sponsoring constructive legislation and in throttling vicious measures.

12. The Federation of Women's Clubs.

13. The Teachers' League through its various branches and by means of circulars did active, efficient work. The League kept a committee at Harrisburg throughout the last six weeks of the session.

14. The Pennsylvania State Education Association through the regular issues of the Pennsylvania School Journal and extra numbers kept the vital issues before its membership of 35,000. The Executive Council and members of the Legislative Committee attended many hearings and did valiant service. The Chairman of the Legislative Committee was employed on part time the last six weeks of the session for Legislative work.

15. The Press espoused the cause of the boys and girls of the State and spread the slogans: 1. That equal opportunity shall be accorded every boy and girl.—Gov. Wm. C. Sproul. 2. As much money per capita for the education of each child as our neighboring states give.—Supt. Wm. W. Evans, President P. S. E. A.

The Press was generous in editorial and advertising space.

16. President Warren G. Harding, Senator Boies Penrose, Secretary Herbert Hoover, Commissioner Philander P. Claxton and other men prominent in the life of the nation enlisted in the cause to lift Pennsylvania, which ranks second in wealth and second in population, up to her appropriate rank in education.

THE PROGRAM.

1. *Standard for elementary teachers:* Two years of Normal School training above a four-year high school course.

2. *Standard for high school teachers:* College graduation.

3. *A minimum salary law* which will guarantee to young people entering the profession compensation to what is offered in other vocations.

4. *Longer school term.*

5. Recognize by law the *professional status of the Superintendent.*

6. *Consolidation* of rural schools.

7. *One State Council of Education* composed of business men and women instead of two Boards now functioning and composed entirely of school men.

8. Establishment and support of kindergartens.

9. *Equitable apportionment* of State funds for education.

10. Justice to the *superannuated teacher* in *retirement allowances.*

REVENUE.

The past two years the State has contributed twenty-four million dollars to public education. To carry out the program which the Legislature has approved will require an increase of twelve million dollars, or thirty-six million dollars for the next two years.

ELECTION OF DELEGATES TO THE HOUSE OF DELEGATES. P. S. E. A.

The Constitution states that "The House of Delegates shall consist of the delegates elected by the Local Branches of the Association, the number in no case to exceed one delegate for every 100 members of a Local Branch, or major portion thereof, enrolled the preceding year as members of the Association. Provided, however, that one delegate shall be allowed each Local Branch having less than 100 members on condition that the major portion of its membership shall have been enrolled in the State Association the preceding year." (Article VI, Section 1.) And also "Delegates shall

sit in the House of Delegates at the session next following their election." (Article VI, Section 5.)

Local Branches may be (1) A legally constituted teachers' institute, (2) A district not having such an institute, but having a District Superintendent, (3) A Normal School, a School of Education or a College, having not less than 20 members in its faculty.

Delegates may be elected any time between the adoption of the constitution at Harrisburg during the Christmas holidays of 1920 and the Altoona meeting December 27, 1921.

Representatives. In addition to the Delegates elected to the House of Delegates by the Local Branches, representatives may be elected by the Local Branches to attend the meetings of the Association. (Article XVIII.)

Superintendent H. W. Dodd, of Allentown, Chairman of the Committee on the revision of the Constitution, writes: "It was in the minds of the framers of the constitution and the members of the Association present when the constitution was adopted that the method, time and place of election of delegates should be left wholly in the hands of the local branches, so long as the provisions of the constitution were complied with."

The constitution further states that, "No delegate shall be entitled to a seat in the House of Delegates until he shall have presented a certificate of election signed by the President and the Secretary of his Local Branch."

Local Branches of the Pennsylvania State Education Association should organize as such by electing a President and a Secretary and such other officers as they see fit, and then proceed to elect the number of delegates to which their enrollment in the Association entitles them. This information may be had by addressing the Executive Secretary.

DIRECTORY OF LOCAL BRANCHES.

The Executive Secretary is gratified to receive official notification of the organization of Local Branches of the Pennsylvania State Education Association. He desires to compile a directory of these Branches and for this purpose needs the name and address of the President and the Secretary of each Local Branch.

James Herbert Kelley,
Executive Secretary,
10 South Market Square,
Harrisburg, Penna.

ELECTION OF STATE DELEGATES TO THE N. E. A. SUMMER MEETING.

Pennsylvania has 2,404 members of the National Education Association and is, therefore, entitled to nine State Delegates and nine alternates at the Des Moines meeting, July 4 to 9, 1921.

In order to conduct the election of State Delegates, Mr. Reuben T. Shaw, of Philadelphia, Chairman of the P. S. E. A. committee to devise ways and means for this purpose, suggests that our members who are also N. E. A. members use the following form for making nominations. The Executive Secretary will then prepare ballots listing the names of the fifty highest nominations and will submit them for a vote to all those making nominations.

Please fill out the following blank:

Date....., 1921.

Mail to Dr. James Herbert Kelley, 10 South Market Square, Harrisburg, Pa.

Are you a member of the N. E. A. for the year 1920-1921? Yes No

I hereby suggest the following names in order of my preference for delegates to the N. E. A.

1
2
3
4
5

Name.....

Address.....

A COLOSSUS OF THE SKY.

The measuring of the great star Betelguese (Be-tel'-geese) is justly rated as one of the most remarkable achievements of astronomical science up to date. For hitherto, although many stars have been weighed, no method has been known whereby their size could be ascertained.

Thus, for instance, the size of Sirius, the dog star—so interesting to us by reason of its extraordinary brilliance, and also on account of historical records concerning it, which date back to the days when the pyramids were built in Egypt—has never been definitely ascertained, though it is believed to be at least forty times as big as our sun and more than 100 times as bright.

Sirius, Procyon and Betelguese, as viewed from the earth, form a triangle in the night sky. But the dog star is very near to us, as stellar distances go—so near that a ray of light, traveling 186,000 miles a second, would require only twenty-two years to reach us thence. Betelguese is about eighteen times as far away.

Betelguese is a giant sun. If our own solar orb were equally big, the whole of the track which the earth pursues in its journeys around that heavenly body would be included within the central flaming mass. The earth has an average distance of 93,000,000 miles from the sun. Thus one may form a notion of the immensity of the great star which has been newly measured.

It must not be supposed, however, that Betelguese is a relatively solid mass like our sun.

The giant star is an enormous ball of flaming gas, very light in proportion to its bulk. Once upon a time our sun, perhaps, was as big or bigger. But our sun is exceedingly old, and, as it has grown older, it has steadily shrunk, until now it is a dwarf in size and, one might say, decrepit.

One understands, of course, that all the stars are suns. Probably three-fourths of those we see with the naked eye are gaseous bodies. The gaseous stars are the powerful light-givers. Such giants as Canopus, Aldebaran, Arcturus and Antares are conspicuous examples. Every star, it is believed, is in its youth a mass of burning gas. As it grows older it shrinks and grows steadily hotter, up to a certain point, when it begins to cool.

Astronomers are accustomed to classify the stars in a rough way as "giants" and "dwarfs." But this has reference to volume, and not to mass. In proportion to their bulk, the giants are light in weight and the dwarfs heavy because more dense. The known approximate weights of many stars appear to indicate that, while one of them may have ten times the mass of another, the biggest of them does not exceed the smallest in this respect by more than that much.

When we look out beyond the confines of our universe, which we call the Milky Way, and, with the aid of a powerful telescope, behold the "star clusters"—island universes they have been called—we realize that all of the many thousands of suns which appear as if massed together in these clusters must be giants.

No fewer than eighty-six of these clusters, globular in form, with a dense massing of stars toward their centers, have been observed and studied. One of them, known as "Messier 13," has a diameter of 350 light-years—meaning that a ray of light would require three and a half centuries to cross it—and many of its suns are undoubtedly hundreds of thousands of times as big as our own orb of today. It takes 365 centuries for a light ray to come to us from Messier 15.—*Ledger.*

DEANS AND ADVISERS OF WOMEN.

THE eighth annual meeting of the National Association of Deans of Women at Atlantic City in February was notable for two reasons: first, because of the significance of the problems considered—those of advisers in high schools, normal schools, colleges and universities; second, because of the unity of spirit and fellowship which permeated the whole convention—the dominant idea was that thinking must be done in terms of conduct.

Better health for women was given first consideration and it was agreed that the emotional life of young women and their moral conduct would be saner if the departments of health of educational institutions were in charge of bona fide physicians with broad medical training and hospital experience.

Mrs. Carrie Chapman Catt presented the opportunities and obligations of suffrage and made a strong appeal to college women that they should not fail in their duties as citizens.

In a brilliant address, Superintendent Susan M. Dorsey, of Los Angeles, California, discussed the place and responsibility of women in public education, particularly in administrative work.

Dean Sarah Louise Arnold, of Simmons College, Boston, spoke of the opportunities for college women to train for citizenship through work with Girl Scouts and such specialized schools as Miss Cora Stewart's Moonlight Schools of the South.

The international relationships among educated women was presented and Dean Ada Comstock, of Smith College, presented a report of the first meeting in London of the International Federation of University Women.

The following key notes suggest other lines of discussion: the necessity of socialization of school life outside the classroom so that each individual may become a worthy unit of the life which centers in the school; the necessity of directing ideals and establishing standards of behavior and dress; policies of chaperonage; self-governing societies to increase individual responsibility, co-operation with faculty, and high moral standards; ways and means of establishing desirable social standards; the Dean of Women as a vocational counsellor; and the qualifications of a Dean of Women.

The following conclusions regarding school dances are significant: Dancing is the most universally popular form of recreation and, if conducted as it should be, is a dignified form of recreation satisfying the requirements of both body and mind, giving poise, grace of movement, and making a strong appeal to the refined taste. Dancing, as well as other forms of recreation, must be carefully supervised and taught so that young men and women may learn correct movement and poise of body and thus avoid the objectionable phases of this pleasurable recreation.

ORGANIZATION OF PENNSYLVANIA DEANS AND ADVISERS.

A group of women deans and advisers of women, representing high schools, normal schools, colleges and universities of Pennsylvania organized the Pennsylvania Association of Deans and Advisers of Women and elected the following officers: Miss Thyrsa W. Amos, Dean of Women, University of Pittsburgh, Chairman; Miss Grace D. McCarthy, Dean of Women, West Chester State Normal School, Secretary; Mrs. William Roberts, Adviser of Girls, Sharon, Member at large.

The powers of the Association are vested in an executive committee composed of the three officers.

THRIFT AND AMERICANIZATION.

THE United States Government through the Treasury Department is conducting a nation-wide campaign to encourage saving. In addition to other activities along this line a special appeal is made to teachers to use every reasonable and legitimate means—that the exacting nature of their duties will permit—to get every boy and girl to form the habit of saving.

The opportunity is presented to every pupil in every school to invest his or her savings in Bonds of the United States Government, maturing in five years or less from the date of purchase, paying 4% interest, compounded quarterly, and redeemable for the full amount paid in plus interest at any time prior to the date of maturity.

The series of Securities thus offered to the masses of the people consists of the $5.00 bond called a Savings Stamp, and Treasury Certificates of $25.00, $100.00, and $1000.00 denominations, maturity value.

The $5.00 Saving Stamp can be secured on the installment plan through the purchase of the 25c Thrift Stamp or the new $1.00 stamp.

The Government, confronted with a colossal debt, billions of it due and payable within the next two or three years, is now and will be for years to come compelled to borrow money. What better way to train boys and girls to be really patriotic and truly American than to cause them to become shareholders in the Government?

This way of saving and investing affords an ideal plan upon which to build up a nation of thrifty people, interested in and loyal to their country.

KINDERGARTEN ROUND TABLE.

THE session of the Kindergarten Round Table was held in the Technical High School. Miss Adelaide T. Illman, of the Training School for Kindergartners, 3600 Walnut St., Philadelphia, was chairman of the meeting. She regards it the purpose of this Round Table "to secure a closer co-operation between Kindergarten and Primary teachers by establishing in our own minds the fact that there are certain essential principles that are fundamental in all phases of life and education. Methods and particular interpretations may differ, but these fundamental principles are common to all the various expressions of the teaching work."

The first paper was by Miss Mary Adair, head of the Kindergarten department of the Philadelphia Normal School, in the discussion of the general topic,

"THE EXTENSION OF FUNDAMENTAL PRINCIPLES AS INTERPRETED BY THE KINDERGARTEN."

The chief object of this paper is to present some of the problems affecting the relationship of the Kindergarten to the First Grade. In this presentation the Kindergarten is represented chiefly from the viewpoint of the *Public School*. Those present, who are engaged in *private* educational enterprises, even with more liberal endowment and opportunity, have their own perplexities. They have also certain advantages notably—greater freedom for experiment, and perhaps less exacting supervision. But for the purpose of this discussion all will admit that the *American Public School* system is the greatest force on this continent today for the promotion of culture and civilization.

Once in this country the church was the most active agency in teaching the people how to live and how the change has come about is not our present concern, but to accept the fact that at this moment of time in our land the *Public School* is the one place where a child must go to be taught how Americans should live, whether he or his parents wish it or not.

The great American Public School system is administered at tremendous cost. The newer type buildings alone with modern facilities of space and equipment represent billions of dollars. This being true, it is imperative that every educational adventure must prove itself pre-eminently *worth while*, or it must, in short order, be consigned to the scrap heap. This situation places every consideration we face today in the light of *relative* importance for the first fact that faces us is that while the first and other grades are guaranteed to the school by a mandatory ruling, The *Kindergarten* in *Pennsylvania* is still awaiting Legislative sanction for its admission as an integral part of the Public School System, and as a necessary feature of its pedagogical procedure.

I emphasize this situation at this point in my presentation that we may, both as Public School and Private School groups, open our minds to the importance of united effort, for to use an old saying "if we do not hang together, we may have to hang separately."

But the permanent service of the Kindergarten to education does not depend alone upon the goodwill of the Legislature. A more critical and more immediately influential body is sitting in judgment upon the value of the Kindergarten and though the Kindergartners hold warmly together and push with might and main to claim recognition, they reckon without a host, if they fail to see that the Primary Teacher, too, must be heart and soul in the urge, or it is weakened at the point where its strongest link should be. In other words, unless each First Grade Teacher recognizes and stands for the Kindergarten as the best possible preparation for life that the school can offer prior to the First Grade, the Kindergarten will continue to "paddle its own canoe" so far as its status in the school system is concerned.

Miss Meredith Smith, State Supervisor of Childhood Education, read the next paper on

THE EXTENSION OF FUNDAMENTAL PRINCIPLES AS INTERPRETED BY THE PRIMARY GRADES.

When we speak of the fundamental principles of education we must first decide to what principles we are referring. If education is cut off from life, a thing by itself, then we shall have to study the situation and make our rules and fundamental principles. But if education is life, then we must look to life to give us our principles.

Let us then think of education as life and consider the principles life sets before us.

The first principle is Activity:

A child is naturally active. A great many primary teachers wish he were not quite so active, they compel him to sit still in his straight immovable desk and to devote his time to symbols, forgetting that understanding comes through experience and that is activity, not passivity.

It is an authentic fact that 30% of our children fail in the first grade. This makes us wonder if our present methods are right. We must and are moving away from these forms in the grades.

Our second fundamental principle is Intelligence.

Not only does life give us activity, but it gives us that by which we control events and keeps us from being controlled by them.

A child is free from economic necessity or social obligation and he lives in a world of his own pleasure. Primary teachers have recognized this, and allowed their children initiative in play.

In order to make a child initiative we must create a situation where initiative is required. As an example if 40 or 50 children are working on one doll-house there is not much chance for individual initiative. But if we have each child making a doll-house or only three or four children making one we have a chance for them to show both initiative and individuality.

Our third fundamental principle is co-operation.

The whole fabric of our civilization is bound up in co-operation. No project we can conceive in life can be done without co-operation. Each person's own best interests are served when he serves the interests of others. Thus in the schools community usefulness must be emphasized. We have been asked should the teacher do all the educating or should the child help to educate himself? If we want the child to share in the responsibility for his education we must create a situation where he feels the needs for education. Children as a rule are unable to recognize anything but immediate needs, and education is for future needs. Therefore we must create in the schools a situation that reflects life. We must create a social situation so that they may talk and learn to express themselves; we must create a business situation, a buying and selling atmosphere so that they may feel the need to count and to read and to write. Just so soon as the primary teachers recognize this childhood need, just so soon as they realize that no little child has as an ideal a standard of absolute quiet, just so soon will we have better schools, better teachers, and a better standard of education.

Dr. Earl Barnes followed on "The Americanization Movement in Relation to the Kindergarten," of which he sends a brief report:

There is a spirit of unrest abroad in the land and the Kindergarten situation reflects this. Central Europe has gone Red, Bolshevism rules—but we in America will never be ruled thus. All good American citizens are fighting these radicalisms and irrationalities.

Let me tell you the basis of good Americanism:

First, democracy—everyone today has a chance to live to work to be himself and to express himself.

Second, service—each must help the other—give and take reciprocity.

Third, good material conditions as related to food, clothing and hygiene.

Fourth, culture, beauty, charm,—æsthetics.

These things America stands for. These make the good American. And it is in the Kindergarten more than any other part of the school that these things are taught. Americanism is not inherited. All the children brought by the stork have to be Americanized just as much as those who come in the steerage. Of these the stork population is the most important.

Most people suppose that the radicals and those who wave the red flag in America are new importations, that they have just arrived in the steerage. This is not true. The greater number of the men found guilty come from three or four generations of "American" parents. They would seem to be born Americans, but they are not. They are born Bolshevists and they do not play the American game.

We have 15,000,000 people of foreign birth who must become Americans. We cannot reach them by telling them the advantages of becoming citizens—they do not understand. They do not speak the language. They do not feel the need of anything more than they have. How then can we reach them? How appeal to them? Through that which is most precious to him no matter what his nationality—his children. And which of his children is closest to him. His boy that goes to the high school cannot discuss his Algebra with his father or mother; they know nothing about it. The girl in the grades cannot discuss her physiology or geography—they are not interested. But the little child who comes from Kindergarten with his little song, his little story, his new word. They are the means through which we can reach the foreign mothers and fathers. None of them can resist the person who comes to them with their little child's hand in his and says—"Don't you want John to learn to be an American? And don't you want to be an American so that when John grows up he may be proud of you?"

Kindergarteners are too modest, too ladylike, too retiring. They must put aside this

modesty and say, "I am a Kindergartener, I have that in my kindergarten which will make the good American citizen. Give me the little children and I will Americanize our United States. I will not teach them merely the flag waving and hurrahing and outward signs; but I will Americanize their hearts."

Miss Elizabeth F. Rice, Supervisor Public Kindergartens of Scranton, presented a report of the Kindergarten Department of the Scranton Public Schools, as follows:

KINDERGARTENS IN SCRANTON.

Until the year 1919-1920 the Kindergartens were conducted with one session but with the system of mid-year promotion the plan was adopted of having an afternoon and morning session for the Kindergarten. Each teacher has an enrollment of forty children and it is arranged so that twenty children of the older group attend in the morning and twenty of the younger group attend in the afternoon.

Close co-operation between the Kindergarten and First Grade teachers has been secured and has resulted in a correlated course of study which is in operation this present year.

In recent years new methods have been adopted that our Kindergartens may carry out more efficiently the principles for which the Kindergarten stands—that of education by means of children's activities. Means are provided to give the children opportunities for the exercise of initiative, development of self control and practical citizenship.

Kindergarten teachers meet twice each month for study and conference with the Supervisor. Recent publications and magazine articles are studied and read and the various pamphlets issued by the Kindergarten Department of the Bureau of Education have been of great benefit.

Occasionally the teachers of the First Grade meet with the Kindergarten teachers for demonstration of plays and games as well as reading and tone production.

Mothers' Meetings are held and home visiting expected. At times evening meetings are held so that both parents can attend. At the beginning of the year 1919 the practice of home visiting and mothers' meetings was extended to include the first two grades, and the Board of Education gave to each teacher of these grades one-half day a month on which to hold a meeting with the mothers of her particular group. In the non-English speaking districts the teachers are endeavoring to accomplish the preliminary work so necessary before these mothers can be induced to form groups in the schoolroom for the purpose of learning to speak and read the English language.

The value and possibilities of the Kindergarten as an agency for work among the non-English speaking peoples, both children and adults, have been clearly set forth by Dr. S. E. Weber, Superintendent of the Public Schools of Scranton, in an article entitled "The Kindergarten as an Americanizer." This article has been published in the March, 1920, number of the Educational Review and also issued as a special circular by the Kindergarten Department of the Bureau of Education at Washington.

The Kindergarteners are organized as "The Scranton Froebel Club," which has for three years aided financially the work of the Kindergarten Unit in France. The Club meets once each month for a program of special interest including music, lectures, and social intercourse.

HOUSE AND SENATE BILLS RELATING TO EDUCATION. MAY 2, 1921.

The bills listed below were passed and are in the hands of the Governor.

As soon as the bills are signed they will be printed for distribution to those who are interested. The Department is preparing a bulletin explaining the provisions of the Edmonds Teachers Salary Bill. This will be distributed to superintendents and secretaries at an early date.

HOUSE.

No. 119, Mr. Woner. Providing for the compensation of school directors attending the County Convention. Signed.

No. 147, Mr. Huston. Providing for the reclassification of school districts on the basis of the 1920 census.

No. 345, Mr. Wolfe. Making an appropriation to the commission of soldiers' orphans schools.

No. 453, Mr. Cook. Requiring school districts to permit inmates of orphan asylums or similar institutions, though not legal residents, to attend school in said districts and providing for the payment of tuition of such children.

No. 650, Mr. Finney. Relating to the acquisition of property by school districts.

No. 668, Mr. Ruch. Relating to the officers of Boards of Education.

No. 669, Mr. Ruch. Providing for the payment of a per capita tax by male and female residents or inhabitants of school districts.

No. 677, Mr. Beckley. A statement of the subjects to be taught in the public schools.

No. 744, Mr. Bell. Amending the Teachers' Retirement Law.

No. 746, Mr. Beckley. Amending the Teachers' Retirement Law. Signed.

No. 748, Mr. Sterling. Increasing the borrowing capacity of school districts. Signed.

No. 749, Mr. David. Requiring the school districts of the 2nd, 3rd, and 4th class to prepare an annual budget. Signed.

No. 767, Mr. Harding. Making 160 days the minimum school term and extending the term by 10 days each year until it reaches a minimum of 190 days.

No. 768, Mr. Woner. Providing that the salary of any teacher, principal, supervisor, district superintendent, or assistant superintendent may be increased at any time during the term for which such person is employed. Signed.

No. 770, Mr. Goodnough. Making it possible to invest the State School Fund in bonds of the Government of the United States. Signed.

No. 784, Mr. Martin. Authorizing school districts of the 4th class to use money bor-

rowed or authorized to be borrowed for purposes which have proved unpracticable or undesirable for other lawful purposes.

No. 823, Mr. Beckley. Requiring that the national flag be displayed in the school rooms of private schools, parochial schools, and other institutions of learning.

No. 830, Mr. Armstrong. Deficiency appropriation for State scholarship. Signed.

No. 832, Mr. McCaig. Making an appropriation to the Retirement Board for the purpose of carrying out the provisions of the law.

No. 914, Mr. Clutton. Amending the law enacted for the safety of persons from fire or panic in certain buildings, and providing that in new buildings for school purposes the auditorium shall not be placed above the first floor level nor below the grade level.

No. 919, Mr. Woodruff. A deficiency appropriation covering the payment of the State's share in the payment of teachers' salaries.

No. 939, Mr. Craig. Providing for the establishment and support of kindergartens.

No. 960, Mr. Morris. Providing for the continuance of a teacher's salary during a period of sickness but not to exceed three months.

No. 961, Mr. Morris. Providing for the compensation of attendance officers.

No. 1016, Mr. Edmonds. The Teachers' Salary Bill. Signed.

No. 1039, Mr. Armstrong. Making an appropriation for State scholarships.

No. 1054, Mr. Dawson. Creating a State Council of Education and defining its powers and duties.

No. 1059, Mr. Elgin. Amending the Retirement Act to include those retired prior to July, 1919.

No. 1093, Mr. McVicar. Relating to the annexation to a borough of territory located in an adjoining county.

No. 1195, Mr. Hess. Providing that the proposed educational building be named "The Thaddeus Stevens Educational Memorial."

No. 1251, Mr. Stadtlander. Relating to the annexation of small school districts by those of the 1st class.

No. 1293, Mr. Hess. Providing for the tuition of orphan children attending school in a district other than that of their domicile.

No. 1367, Mr. Hess. Providing employment certificates for farm and domestic service.

No. 1377, Mr. Chaplin. Provisions relating to high schools.

No. 1478, Mr. Martin. A blanket bill. Vacancy in school boards. Superintendent or principal acting as secretary. Permitting superintendent to teach in summer schools. Transportation of pupils.

No. 1508, Mr. Curry. Amending Section 1316 by eliminating 200 hours pedagogy.

SENATE.

No. 77, Mr. Patton. Amending Section 11 of the Teachers' Retirement Act.

No. 168, Mr. Eyre. Transferring and reapportioning a certain unexpended part of the appropriation made for consolidation of schools.

No. 290, Mr. Craig. A proposed amendment to Article 3 of the Constitution classifying municipalities and school districts.

No. 325, Mr. Leslie. Requiring all teachers in public, private and parochial schools or other institutions of learning to take an oath of allegiance to the Commonwealth and to the Government of the United States.

No. 334, Mr. Eyre. The Normal School Deficiency Bill. Signed.

No. 338, Mr. MacDade. Providing for the purchase of the Cheyney Training School for teachers. Signed.

No. 648, Mr. Smith. Providing for adequate medical inspection in districts of the 1st, 2nd, and 3rd class.

No. 837, Mr. Baldwin. Providing assistant superintendents in counties having 150 or more teachers.

No. 854, Mr. Crow. Extending the limit of indebtedness from 7% to 10% of the assessed valuation.

No. 889, Mr. Hornsher. Permitting boards of school directors to provide residence for teachers.

THE FIRESTONE UNIVERSITY SCHOLARSHIP.

A prize of about $5000.00 to cover every reasonable expense of a student at any college or university for four years is offered by the Highway and Highway Transport Education Committee for the best essay of 500 words on the subject, "Good Roads and Highway Transport." The contest is open to all pupils of high school grade. The essays from Pennsylvania must be in the hands of Dr. Thomas E. Finegan by June 15, 1921.

Miss Katherine Butterfield, of the Weiser, Idaho, High School, won the national prize last year and is now attending school under its provisions. Recently she was called to Washington, where she was received by President Harding, who formally presented to her the scholarship certificate.

The co-operation of city and county superintendents is earnestly desired so that no high school pupil in Pennsylvania may be deprived of the opportunity of winning the prize.

Supt. Charles R. Stone, of Munhall, Pa., is in need of additional teachers to run his new building and to take care of children who will come to his schools from new territory added to the borough of Munhall. The positions and maximum salaries are as follows: Music supervisor—grades and High School—maximum $185 for 9 mos.; Junior High School English—grades 7-8—maximum $160 for 9 mos; about six grade vacancies in grades 2-6 where the maximum salary is $150. Recent legislation may raise some of these salaries. The local directors will do all they can for the teachers.

At the Department of Superintendence at Atlantic City the session of Monday evening on the Million-Dollar Pier included an interesting address by Mrs. Corinne Roosevelt Robinson, of New York, on her brother, Theodore Roosevelt, as a lover of books. She told little incidents of his childhood; of his love of biology, science and poetry from earliest boyhood. She gave the list of Roosevelt's best loved books that has become a criterion for other literary aspirants. It includes the Bible, Apochrypha, Borrow's Bible in Spain, Zingali; Avengro, Wild Wales, the Romany Rye, Shakespeare, Spencer, Faerie Queen; Marlow, Mahanko Seapower; Macaulay, history essays, poems; Homer, Illiad, Odyssea; Lachanson, Deroland, Niblungelied; Carlyle, Frederick the Great; Crothers, Gentle Reader; Mark Twain, Huckleberry Finn, Tom Sawyer; Gregoriovius, Rome; Percy's Religues; Euripides, Murray translation; Bachchae, Hippolitus; Cooper, The Two Admirals, Pilot; Thackeray, Vanity Fair, and others.

ONE HUNDRED PER CENT.

The following counties have an enrollment of one hundred per cent. of their teachers as members of the Pennsylvania State Educational Association for the year 1921: Adams, Berks, Blair, Cambria, Cameron, Carbon, Columbia, Dauphin, Elk, Fayette, Franklin, Fulton, Lancaster, Lawrence, Lebanon, Lehigh, Lycoming, Monroe, Montour, Northampton, Pike, Snyder, Sullivan, Tioga, Union, Warren, Wyoming.

The following cities and boroughs, under the direction of Superintendents, have made this splendid record of one hundred per cent: Abington township, Allentown, Altoona, Ambridge, Bangor, Beaver Falls, Berwick, Blakely, Bellefonte, Bloomsburg, Braddock, Carbondale, Carlisle, Carnegie, Chambersburg, Charleroi, Columbia, Connellsville, Conshohocken, Coraopolis, Corry, Danvill, Darby, Donora, Dormont, Dunmore, Dunbar township, East Conemaugh, Easton, Farrell, Greensburg, Greenville, Hanover, Harrisburg, Hazel township, Homestead, Johnstown, Juniata, Kane, Kittanning, Lansford, Latrobe, Lebanon, Lewistown, Lock Haven, Lower Merion township, Mahanoy City, Mahanoy township, Middletown, Milton, Minersville, Monessen, Monongahela City, Mount Carmel, Mt. Pleasant township, Nanticoke, New Brighton, New Kensington, Northampton, Olyphant, Phoenixville, Pittston, Pottsville, Punxsutawney, Radnor township, Rankin, Redstone township, Rostraver township, Shenandoah, Steelton, Sunbury, Tamaqua, Tarentum, Throop, Tyrone, Uniontown, Warren, West Chester, Wilkinsburg and Windber.

The following Normal Schools also make good on this honor list: Bloomsburg, California, Clarion, East Stroudsburg, Edinboro, Indiana, Kutztown, Lock Haven, Shippensburg, Slippery Rock and West Chester.

The first meeting of the National Child Health Council's Advisory Committee on health education of school children, was held in New York on May 12th. Educational authorities were well represented and gratifying progress was made. Three sub-committees were organized to handle questions of administration, subject matter and methods. Dr. Thos. D. Woods, Dr. Wm. H. Burnham and Dr. James M. Andrews, having been elected chairmen, respectively. Pennsylvania educators on the committee are Dr. Thomas E. Finegan and Miss Katherine Pritchett. Dr. L. Emmett Hall was elected chairman of the entire committee.

"In the great test of education as a practical process, that is, in the realization of the worth of life, emotion bulks larger than thinking. . . . Music will be a positive contribution to worthier emotional life if we work it rightly. If we are to start pupils in new habits that are worth while, we must teach them that real education comes only through doing. It is faithful work, thoroughly done at the time it should be done, that in the end opens the door to the highest enjoyment and to the real appreciation of any art. When music is faithfully taught upon that basis, there will be no question as to its educational value. American children at the age of four or five love music, and are by nature thoroughly musical. Every little child who can speak can be taught to sing; every normal child can be taught to listen."

"The graduates of the public schools should organize and attempt to do something out of gratitude for what they have received. The thing that I believe should be done is to supply a teaching of ethics in the school. There are enough graduates of the public schools, who have risen to important stations in America, who are willing to give lectures to the pupils and teachers and help them to study this subject and thus furnish means to raise the morals of our pupils."

"Education used simply for utilitarian purposes can be justified, education merely as a decoration in despicable, but education that wakes the imagination, that kindles the intellectual powers, that leads men to blaze new trails—that is the highest form of education. Here rests the ark that bears all that is left of the old world's civilization and from here we will create new ideals and send out new life and strength and hope to a new civilization—one that shall not pass away or be destroyed."

It is often at the times of greatest depression that the fullness of strength and comfort comes to us. The spiritual ebb tide seemed so low that it could go no lower. After a hard season, or an exhausting session, that put the capstone on the climax of fatigue and despondency, we felt that we were "all in" and might as well sink on the spot and await the end. We felt we could not do for ourselves, but we arose to a renewal of the effort—what we consent to do is for the sake of those, and always chiefly of one, dependent on us. We must make the attempt for them. We do not belong to ourselves; we are not our own to give away or to throw away.

Therefore, by all the leverage of the inspiration that comes from anywhere at any time, we must live life out to its uttermost, not for a selfish enjoyment, but for the rare satisfaction that comes of satisfying another. By what we give away and not by what we keep we are enriched. Whatever irradiations from on high at any time have come to us were meant not only for a lamp to our own paths, but for the light of all the world.—*Public Ledger.*

TRANSFER OF OWNERSHIP.

With this number The Journal passes to the control of the Pennsylvania State Education Association and the editorial charge of Dr. James Herbert Kelley, the Executive Secretary of that organization, with the hearty God Speed of its late owner and publisher.

In the future The Journal will be published monthly, except July and August. The first number of Volume 70 will be the September number, which will be mailed each member of the Association about September first.

As in the past, The Journal will be the official organ of the Department of Public Instruction and will contain its decisions, advice, explanations, constructions and information. On the order of the State Superintendent of Public Instruction, The Journal will be sent to each Board of School Directors in the State for public use. According to the Constitution of the Pennsylvania State Education Association, all members of Boards of School Directors are eligible to membership in the Association.

The following general plan for The Journal has been adopted by the Committee on Editorial Policy of the Executive Cauncil:

1. Professional Articles.
2. Editorials.
3. Educational Notes and News.
4. Educational Meetings.
5. Quotations: Originality is wise selection.
6. Special Correspondence.
7. Pennsylvania State Education Association.
8. Directory of Local Branches of the P. S. E. A.

The hearty goodwill of the present editor, who has made up every number of The Pennsylvania School Journal for fifty-five years, continues to aid the Journal under its new editor and the Pennsylvania State Education Association under its new constitution.

J. P. McCaskey, Lancaster, Pa.

CHANGE IN COMMISSIONERSHIP.

The National Education Association, according to its Secretary, J. W. Crabtree, has in its Journal for June, which is now on press, the following Editorial concerning the change in the Commissionership of Education.

"Out of a clear sky after the Journal has gone to press comes the announcement of the dismissal of Dr. Claxton as Commissioner of Education and the appointment of Mr. J. J. Tigert in his place. This action will be deplored by the friends of public education throughout the Nation. It is not necessary to discuss the long and faithful service of Dr. Claxton, whose work has had the approval of two successive presidents of opposite political faith, nor is it necessary to review the little-known record and untried leadership of the man who has been named for his place. It is most unfortunate that a change should be made at this time when the need for recognized national leadership in education is imperative. It is certain to be construed by the public as having been determined by political motives and in total disregard of the growing demand for the elevation of the Nation's chief educational office."

UNIVERSITY OF PENNSYLVANIA.

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For information address heads of departments, University of Pennsylvania, Philadelphia, Pa.

No better half year of The School Journal has been issued than from July to December, 1920. We will send these six issues for fifty cents to any persons who want them. There are articles of rare value in these numbers. Address J. P. McCaskey, Lancaster, Pa.

There is a common but also a very erroneous impression that only a favored few can learn music. In the schools of New Haven, "two hundred and forty-eight children out of six thousand were found unable to sing the scale, and one hundred and forty of these belonged to the primary grades;" that is, out of this multitude, only one hundred and eight above the primary grade could not sing. The superintendent says: "A systematic course of training the voices of the little ones in the primary rooms has been commenced. Thus far the experiment has been a complete success. Children from five to eight years of age readily sing the scale, both singly and in concert, and read from the blackboard notes on the staff by numerals and syllables with as little hesitation as they call the letters and words of their reading lessons." In the Hancock School, of Boston, of about one thousand girls, less than a dozen were unfitted from all causes for attaining to a fair degree of success in singing. The U. S. Commissioner of Education, when visiting the schools at New Haven, was surprised and gratified at hearing children in the primary schools sing at sight exercises marked on the blackboard by the teacher: "The exercises are placed on the blackboard in the presence of the scholars, and they are required to sing them once through without the aid of teacher or instrument, and are marked accordingly." In primary schools, gymnastic exercises often accompany the singing. When children are trained to erect posture, and the right use of the vocal organs, speaking, reading, and singing are most invigorating exercises; expanding the chest, promoting deep breathing, quickening the circulation, and arousing both the physical and mental energies.

BABY BYE, HERE'S A FLY.

THEODORE TILTON.
G. B. LOOMIS.

Lively.
1. Ba - by bye, here's a fly, We will watch him, you and I. How he
2. Spots of red dot his head; Rain - bows on his wings are spread! That small
crawls up the walls, Yet he nev - er falls! I be-lieve, with those six legs,
speck is his neck, See him nod and beck! I can show you, if you choose,
You and I could walk on eggs! There he goes, on his toes, Tick-ling ba - by's nose.
Where to look to find his shoes; Three small pairs, made of hairs, These he always wears.

Black and brown is his gown,
He can wear it upside down!
It is laced round his waist,
I admire his taste!
Pretty as his clothes are made,
He will spoil them, I'm afraid,
If to-night he gets sight
Of the candle-light.

In the sun webs are spun,
What if he gets into one?
When it rains he complains
On the window panes.
Tongues to talk have you and I,
God has given the little fly
No such things; so he sings
With his buzzing wings.

He can eat bread and meat,
See his mouth between his feet!
On his back is a sack
Like a peddler's pack.
Does the baby understand?
Then the fly shall kiss her hand;
Put a crumb on her thumb,
May be he will come.

Round and round on the ground,
On the ceiling he is found;
Catch him? No. Let him go.
Never hurt him so!
Now you see his wings of silk
Drabbled in the Baby's milk,
Fie! oh fie! foolish fly!
How will you get dry?

All wet flies twist their thighs;
So they wipe their head and eyes,
Cats, you know, wash just so;
Then their whiskers grow!
Flies have hair too small to comb;
Flies go all bareheaded home;
But the gnat wears a hat:
Do you laugh at that?

Flies can see more than we,
So how bright their eyes must be!
Little fly, mind your eye,
Spiders are near by.
For a secret I can tell,
Spiders will not treat you well;
Haste away, do not stay,
Little fly, good day!

THE first number of *The Pennsylvania School Journal* was issued by Dr. Burrowes in January, 1852. During that year the first meeting of the State Teachers' Association, of which he was president, was held in December. Extended reports of the Seventy meetings thus far held are found in the successive volumes of *The Pennsylvania School Journal* since 1852. A brief record of each of these meetings was given in *The Journal* and in the bound volume of proceedings for 1912. No sessions were held in 1862, 1879, 1893, or 1904.

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1868, August,	Allentown	Edward Brooks, Millersville	240
1869, August,	Greensburg	Samuel S. Jack Greensburg,	560
1870, August,	Lancaster	Henry S. Jones, Erie	340
1871, August,	Williamsport	Albert N. Raub, Lock Haven	323
1872, August,	Philadelphia	Henry Hauck, Lebanon	1,116
1873, August,	Pittsburgh	George P. Hayes, Washington	467
1874, August,	Shippensburg	George J. Luckey, Pittsburgh	157
1875, August,	Wilkes-Barre	William Warren Woodruff, West Chester	284
1876, August,	West Chester	James Pyle Wickersham, Lancaster	309
1877, August,	Erie	George L. Maris, West Chester	191
1878, July,	Reading.	William N. Aiken, Lawrence	248
1880, July,	York	Benjamin Franklin Shaub, Lancaster	124
1881, July,	Washington	Jesse Newlin, Pottsville	385
1882, July,	Pottsville	James P. Andrews, Pittsburgh	488
1883, July,	Williamsport	Nathan C. Schaeffer, Kutztown	450
1884, July,	Meadville	Samuel A. Bear, Reading	303
1885, July,	Harrisburg	John Morrow, Allegheny	548
1886, July,	Allentown	John Q. Stewart, Harrisburg	620
1887, July,	Clearfield	James M. Coughlin, Wilkes-Barre	438
1888, July,	Scranton	Matt. Savage, Clearfield	435
1889, July,	Altoona	Elnathan Elisha Higbee, Lancaster	348
1890, July,	Mauch Chunk	R. M. McNeal, Harrisburg	376
1891, July,	Bedford	George Morris Philips, West Chester	495
1892, July,	Beaver Falls	Eliphalet Oram Lyte, Millersville	621
1894, July,	Media	Samuel Hamilton, Braddock	472
1895, July,	Mt. Gretna	Eliakim Tupper Jeffers, York	634
1896, July	Bloomsburg	A. C. G. Smith, Media	331
1897, July,	New Castle	David Jewett Waller, Bloomsburg	424
1898, July,	Bellefonte	Martin Grove Brumbaugh, Philadelphia	221
1899, July,	Gettysburg	Ebenezer Mackey, Reading	258
1900, July,	Williamsport	John A. M. Passmore, Philadelphia	1,012
1901, July,	Philadelphia	John Summers Stahr, Lancaster	2,015
1902, July,	Pittsburgh	Junius Rudy Flickinger, Lock Haven	2,738
1903, July,	Wilkes-Barre	Addison L. Jones, West Chester	1,144
1905, July,	Reading	Samuel Andreys, Pittsburgh	1,306
1906, July,	Altoona	L. E. McGinnis, Steelton	1,008
1907, July,	Greensburg	Reed B. Teitrick, Brookville	824
1908, July,	State College	J. B. Richey, McKeesport	540
1909, July,	Bethlehem	Charles S. Foos, Reading	2,137
1910, July,	Erie	Charles Lose, Williamsport	1,783
1910, December,	Harrisburg	Cheesman Abiah Herrick, Philadelphia	1,801
1911, December,	Philadelphia	F. W. Robbins, Lebanon	2,887
1912, December,	Harrisburg	J. George Becht, Harrisburg	6,121
1913, December,	Pittsburgh	David A. Harman, Hazleton	10,664
1914, December,	Harrisburg	Robert C. Shaw, Greensburg	11,125
1915, December,	Scranton	Henry H. Baish, Altoona	11,136
1916, December,	Harrisburg	Eli M. Rapp, Reading	12,501
1917, December,	Johnstown	Charles S. Davis, Steelton	10,678
1918, Oecember,	Harrisburg	S. E. Weber, Scranton	18,326
1919, December,	Philadelphia	F. E. Downes, Harrisburg	28,958
1920, December,	Harrisburg	W. G. Chambers, Pittsburgh	34,477

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